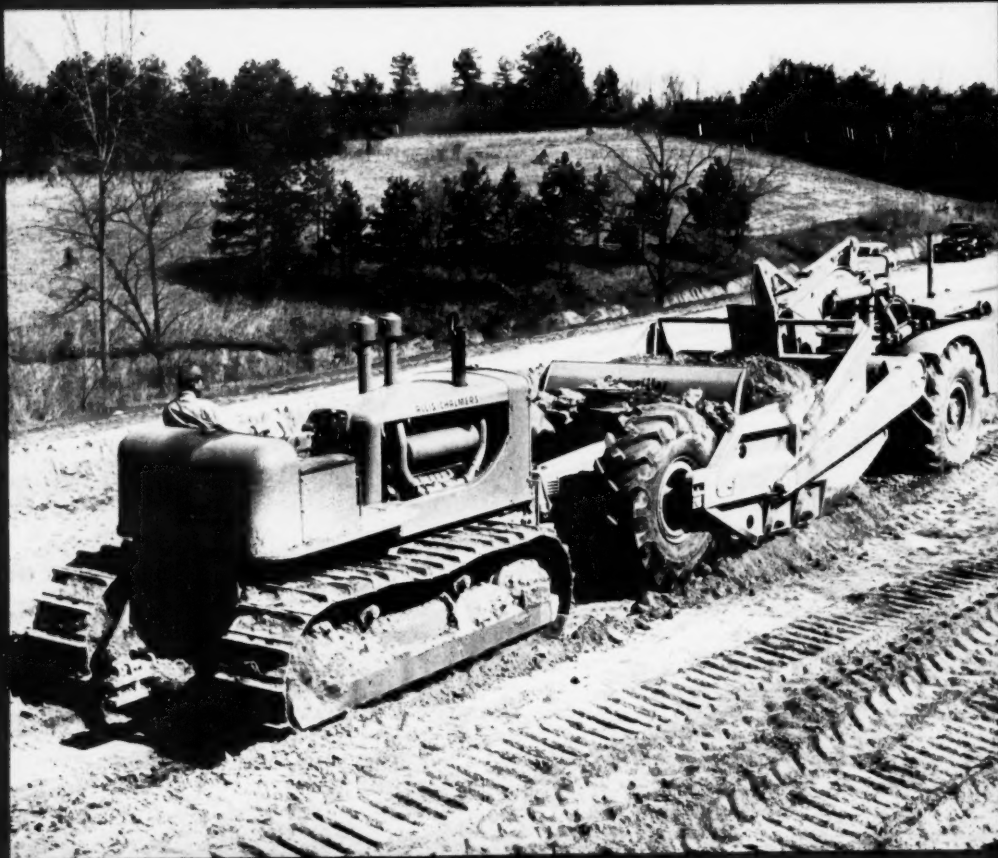


Form 3547 Requested.

Construction

IN THE SOUTH

UNIVERSITY MICROFILMS
ATTN: MR. EUGENE B. POWER
313 N. FIRST ST.
ANN ARBOR, MICH.



MAY 1952

Equipment shown: 100-ton crawler-mounted bulldozer equipped with rubber plate operating on the road surface. The bulldozer is pushing a heavy-duty roller on a dirt road. The background shows a line of trees and a clear sky.

Barber-Greene

B-G
Redi-Fab
BELT
CONVEYORS



EASY

SELECTION FROM CATALOGED UNITS

Experience has shown that most of your belt conveyor requirements are met by units that form a specific segment of the vast Barber-Greene Conveyor line. That segment is the Redi-Fab series—the conveyor class you most frequently need. These conveyors have been exp-

erimentally and conveniently cataloged in a wide variety of small increments of width, length and horsepower. Redi-Fab series components—truss sections, drives, takeups, power units, terminals and complete assemblies—are "packaged" for off-the-shelf delivery.

FAST

QUOTATION, DELIVERY, ERECTION

Actually, you can select your Redi-Fab Conveyor, and order the proper components, directly from Catalog RF—an entirely new approach to conveyor selection. Better still, work with your B-G distributor representative. Without costly time-consuming engineering, you can choose

the conveyor that exactly meets your needs. Quotation and delivery are faster because you select from standard, pre-built units normally available from distributor or factory stock. Erection is simpler—all units are delivered clearly marked for fast, easy assembly.

NOW

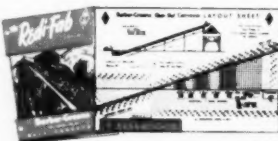
More than ever, machines must be used most effectively. Redi-Fab Conveyors offer the fast, sure way to release shovels, cranes, tractors and the like for more productive work—to minimize man power requirements and increase productivity. Send for your copy of Redi-Fab Catalog RF.

BARBER-GREENE
COMPANY

AURORA, ILLINOIS, U. S. A.

send for *Redi-Fab* catalog

The new 40 page catalog makes it simple for you to figure your own conveyor requirements if you wish. No knowledge of horsepower required. The catalog makes possible the proper selection of the conveyor with the correct size of drive and motor. In fact, with the new layout sheet in the Redi-Fab Catalog, you can make your own layout—accurately, down through all details including the A-frame supports. Write for your copy, or ask your B-G distributor.



202A

HIGH LIFTS

made Easy!

A good crane is good on every crane job! It's more than just a boom—or a feature—a clutch or a hoisting mechanism. It's a combination of a basic machine with its multiplicity of advantages—a combination of design, materials, balance, engineering—all the tangible and intangible qualities that result from years of experience.

Northwest brings you a choice of boom hoist equipment for any condition. Uniform Pressure Swing Clutches take the jerks and grabs out of swinging and makes spotting the load easy (important with high booms). Northwest steering is smoother, assures easier maneuvering with the load when booming high. The "Feather-Touch" Clutch Control gives the "feel of the load" and makes operation smoother and easier without resorting to complicated mechanisms. When required, engine throttle control is available for operations requiring variable speed.

These are just the high spots for making the high lifts easier. Just a few of the reasons why one out of every three Northwests sold is a repeat order. You can plan on a Northwest! Why not talk over placing an order. Get the full story.

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1505 Field Building,
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Chicago 3, Ill.

You can't have all these advantages unless you own a NORTHWEST!

- **SIMPLICITY OF DESIGN** assures easier upkeep.
- **"FEATHER-TOUCH" CLUTCH CONTROL** gives easy operation and retains the feel of the load without delicate or complicated mechanism.
- **UNIFORM PRESSURE SWING CLUTCHES** give smoother engagement, better control, less adjustment and longer life.
- **NORTHWEST POSITIVE TRACTION** while turning, as well as when going straight ahead, permits Northwests to travel where others have difficulty. Travel gears are fully enclosed and run in oil.
- **BALL AND ROLLER BEARINGS** on all high-speed shafts always have been standard equipment on Northwests.
- **CAST STEEL BASES WITH CAST STEEL MACHINERY SIDE FRAMES** are typical of Northwest design for permanence of shaft alignment and rigidity.
- **CUSHION CLUTCH** eliminates the effects of shock overloads to parts under power.
- **ALL NORTHWESTS** are easily convertible from Shovel to Crane, Dragline or Pullshovel.

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*Successful
Contractors
Stay Successful
with
Proved Equipment*

ABOVE ALL...

A SLING

MUST BE SAFE!

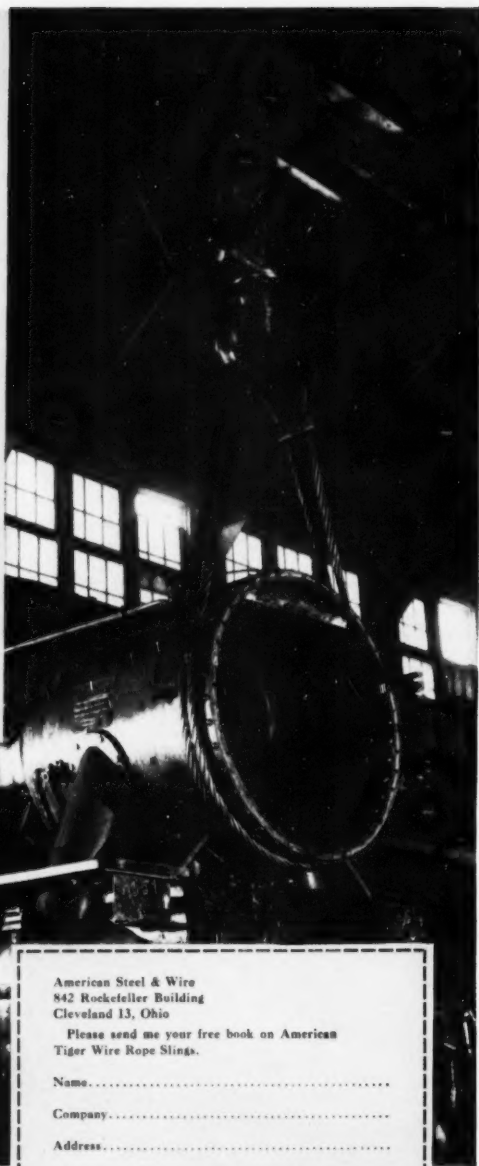
● You wouldn't trade places with the men in this picture unless you had utmost confidence in the wire rope sling.

Naturally you want to move loads easily at ~~lowest possible~~ cost, but neither of these advantages need be sacrificed for safety when you standardize on American Tiger Wire Rope Slings.

Your job is probably different—but we make different slings, too—enough types and varieties to fit the 430 applications listed in our "Tiger Sling" Book. If you get a copy of this book, and don't find the slings you need, tell us about it and our engineers will work out a special design for your own use.

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UNITED STATES STEEL EXPORT COMPANY, NEW YORK



U-S-S AMERICAN TIGER WIRE ROPE SLINGS

UNITED STATES STEEL

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The CONSTRUCTION magazine is published in four editions: C edition is for North Carolina and South Carolina; S edition, Alabama, Florida, Georgia and Tennessee; N edition, Kentucky, Maryland, Virginia and West Virginia; W edition, Arkansas, Louisiana, Mississippi, Missouri, Oklahoma and Texas.



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Managing Editor

WM. E. McCORD
Advertising Manager

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MANUFACTURERS RECORD PUBLISHING CO.

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BALTIMORE 3, MARYLAND

Publishers Of

DAILY CONSTRUCTION BULLETIN

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BLUE BOOK OF SOUTHERN PROGRESS

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Baltimore Engineers Hear Weight Curbs Discussed

Greater technical development in highway building to parallel the advancing technology of other industries is advocated by Arthur W. Gorman, of the marketing division of Esso Standard Oil Co., who in a discussion of weight limitations said truck hauling costs could be lowered twenty per cent by more liberal weight laws.

Terming anti-truck propaganda so much "balderdash," in a talk before a joint meeting of the local sections of the American societies of civil and mechanical engineers, Mr. Gorman said the truck is now in the commanding position of handling three times as much tonnage as all other means of transportation and is now an effective vehicle "crying for recognition."

Twelve per cent of the country's roads, or 350,000 miles, carry eighty-six per cent of the traffic and 2,587,000 miles, or eighty-eight per cent carry fourteen per cent of the traffic, a combination described by the speaker as resulting in congestion—and when congestion reaches an intolerable point, toll roads appear as the solution.

Mr. Gorman pointed to the New Jersey turnpike and cited the fact that its toll collections have so far passed estimates that the total is millions of dollars above the interest requirements on the bonds sold to finance the project. This situation, he said, indicates how far the state was behind in providing adequate highways.

The Bureau of Public Roads, he declared, is influential in imposing the low weight limitations on the nation's highways and advocates an 18,000-pound limit in the laws of all states under a formula made in 1922 when the automobile was first making its influence felt. He called this a "policy of fixation" which retards development of low cost highway transportation.

Anti-truck propaganda popped up and started "banging trucks over the head" almost as soon as cracks appeared in the stretch of highway used in the widely publicized Maryland road test, Mr. Gorman asserted. The difference seen by the speaker in the slabs that cracked and those that remained intact was "water" and "do we have to have a ponderous road test to find that out?" he asked.

Robert M. Reindollar, a former chairman and chief engineer of the Maryland State Roads Commission, differed widely with Mr. Gorman's views, pointing out that 22,000-pound axleloads do greater damage than 18,000-pound loads. He declared there is not a thing to the propaganda that the public must have roads that will carry 36,000 pounds per axle.

Mr. Reindollar singled out a previous speaker's statement that less than two per cent of the total truck traffic was found to be violating Maryland's highway load laws. Construction of highways to carry the overloads of such a small percentage of the truck traffic is not only uneconomical, but unfeasible as well. He said Maryland's road weight limitations

(Continued on page 53)

only Allis-Chalmers offers you

History-
Making

Tracto-Shovel

Thousands of Allis-Chalmers HD-5G 1-yd. front-end shovels are making history . . . handling an endless variety of excavating and material handling jobs faster, at lower cost than ever before.

Now . . . to meet the challenge of ever-increasing production demands, Allis-Chalmers *multiplies the scope of tractor usefulness even more.* And here's how.

The same basic design — the same versatility that made the HD-5G so useful can now be yours in 2-yd., 3-yd., and 4-yd. Tracto-Shovels. Combined with the unmatched performance of the new Allis-Chalmers tractors, they give you a real competitive advantage by bringing you a new, faster and better way of getting the job done.

A NEW ERA OF TRACTOR USEFULNESS

Pioneering New Methods — Tracto-Shovels are blazing new trails in excavating and material handling . . . doing traditional jobs in a new, better way.

A Size for Every Job — Faster, more efficient operation; at lower equipment investment.

All-'Round Versatility — Not limited to a specific type of operation. Quickly interchangeable attachments adapt Tracto-Shovels to different assignments *in minutes*. Simple truck or trailer transportation between jobs.

Built to Take It — These new Tracto-Shovels are the toughest, strongest ever built. Every part has ample size and strength to do its job.

14 different attachments

Standard buckets, heavy-duty rock buckets, rock forks, bulldozer blades, light materials buckets (up to 7 cu. yd.) . . . plus other attachments for some models.

1 yd. HD-5G

40 Drawbar hp.
Dumping height (bucket hinge pin): 9 ft., 1/4 in.
Total weight: 16,200 lb.

2 yd. HD-9G

72 Drawbar hp.
Dumping height (bucket hinge pin): 11 ft., 4 in.
Total weight: 29,900 lb.

3 yd. HD-15G

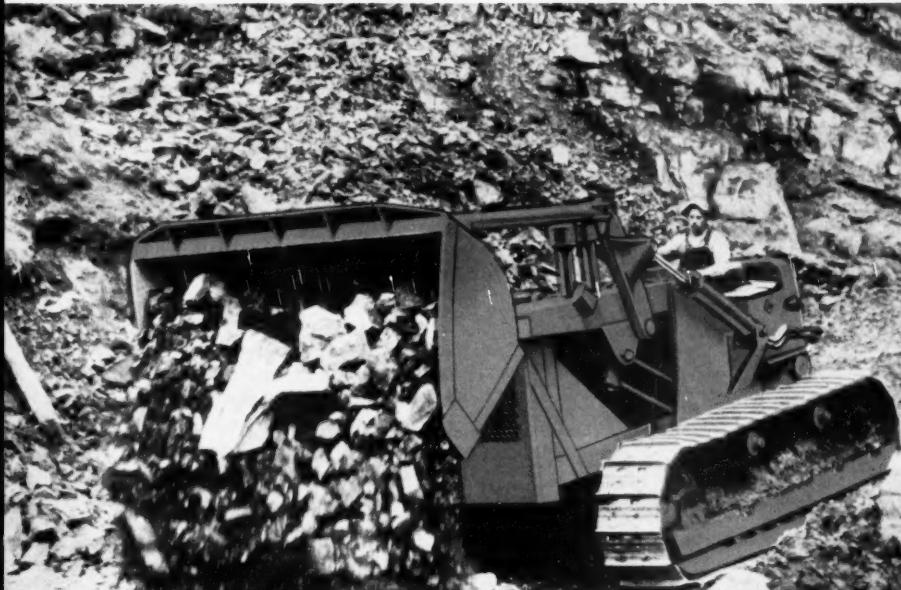
109 Drawbar hp.
Dumping height (bucket hinge pin): 12 ft., 8 in.
Total weight: 40,000 lb.

4 yd. HD-20G

Hydraulic torque converter drive
175 net engine hp.
Dumping height (bucket hinge pin): 13 ft., 5 in.
Total weight: 61,600 lb.

Advantages

NOW IN 3 NEW, BIGGER SIZES!



**World's Largest
Front-End Shovel**

— handles toughest
excavating and ma-
terials handling jobs
in a new, faster, bet-
ter way. Standard
bucket capacity —
4 yd.; light materials
capacity — 7 yd.

the newest, finest line on Earth!

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

IF THE

SHOE FITS

**...it's no
accident!**



*If you have any problems
or questions on the use and
mixing of air-entrained con-
crete, the Hermitage Service
Engineer will be glad to help
and advise you—contact any
Hermitage office.*

The "fit" comes first when you're buying shoes—or cement! Whether you pay \$5 or \$35 for your shoes, you first make sure that they fit—because your feet will complain in a hurry if they don't. And that's the way it is with air entraining cement. Although it often results in quality concrete . . . you'll find complaints in a hurry if you try to make it "fit" jobs that it can't handle.

Proper air entrainment is the key to better concrete—but no air entraining cement will guarantee proper air entrainment in concrete. Every brand is made according to Federal and ASTM specifications to deliver good results under "average conditions." But variations in local aggregates and even local climatic conditions affect the amount of air entrained, so the "average conditions" seldom exist.

It's just as easy—and just as important to be sure that your air entrainment "fits" as it is to be sure of your shoes . . . and you do it the same way—by *measuring!* Simply measure out the required amount of any well known air entraining agent and add it to regular portland cement at the mixer. It's the safe, simple and sure way to get air-entrained concrete that fits your particular job exactly.

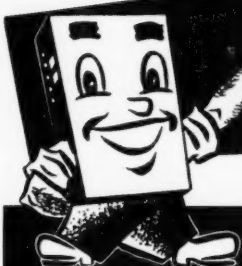
Just remember to use air entraining cement only when you're *sure* that it can handle the job—and remember, too—you can't buy better regular portland or air entraining cement than Hermitage.



Hermitage Portland Cement Company

American Trust Building, Nashville 3, Tenn.

Portland • High Early Strength • Air Entraining • Masonry



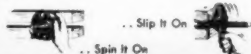
UNIVERSAL CONCRETE ACCESSORIES "TOPS" IN CONCRETE FORMING

A COMPLETE LINE FROM 1 SOURCE

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SPIROLOC Form Ties Standard

5000 to 30,000 lb. Form Ties
for $\frac{3}{8}$ " to 1" threaded tie rod.
Furnished with either Handle or Nut Type
Washers



... Slip It On

... Spin It On

SPIROLOC Form Ties Spreader Type



WALL
THICKNESS

The Best "All Around" Tie In the Industry
Provides 5,000 to 30,000 lb. form ties

TWISTY Form Ties



A Combination Form Tie
and Positive Spreader
Breaks-off 1" back of the
wall face.

The FORM CLAMP



Pro-
vides tre-
mendous
holding power
with The Sure
Grip
Prin-
ciple

BUILDING SPECIALTIES

BAR SUPPORTS



Dovetail
Anchor
Slot with
Filler

Dovetail
Brick
Anchor

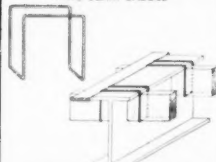
"Z" Type
Stone
Anchor

SOFFIT SPACER



BEAM CLAMP

WIRE BEAM SADDLE



WIRE BEAM SADDLES IN PLACE



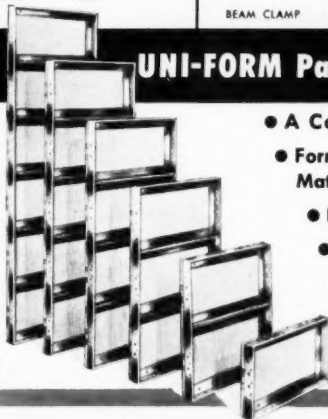
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SLAB BOLSTER



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UNI-FORM Panels... "TOPS" IN CONCRETE FORMING



• A Complete System—always Automatically accurate.

• Form Any Concrete . . . Using Less Lumber, Labor and
Material Than Any Other Method!

• Ready To Use—Fast Job Starts—NO WAITING.

• Rented—Sold—Rented with a Purchase Option.

• Complete Engineering and Field Service provided
without charge to UNI-FORM Panel users.

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Accessories and UNI-FORM Panels—There's no obligation.

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Concrete Form Specialists Since 1912

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Service Wherever You Build... Coast-to-Coast

Jobs don't come too big for **DORSEY** Low Beds!



The DuPont Company, prime contractor to the U.S. Atomic Energy Commission, uses this 100-ton drop deck Dorsey MT to haul heavy equipment on construction at the Savannah River Plant.



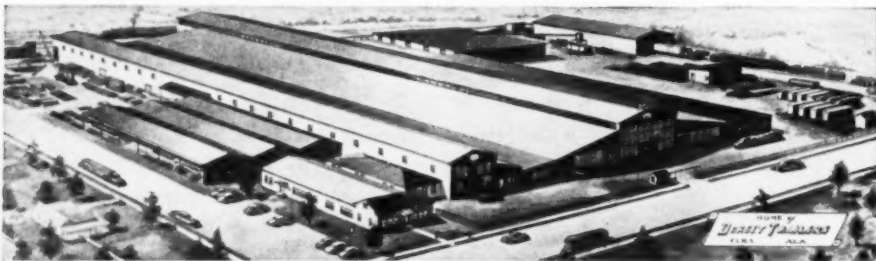
MTS—Ideal for road patrols and all types of construction equipment. The sturdy Dorsey MTS is available in both semi and full trailers, level and drop decks, 15 to 35 ton capacity.



MK—A popular low bed trailer for bulldozers, small shovels and other construction equipment up to 15 tons. Also Model M in 15 to 25 ton capacity and tilt-to-load trailers up to 10 tons.

Experiences on construction jobs all over the world prove the dependability of Dorsey Low Bed Trailers under the toughest conditions. The rated carrying capacity of a Dorsey is purposely conservative, to provide a safety factor with heavy loads over rough terrain.

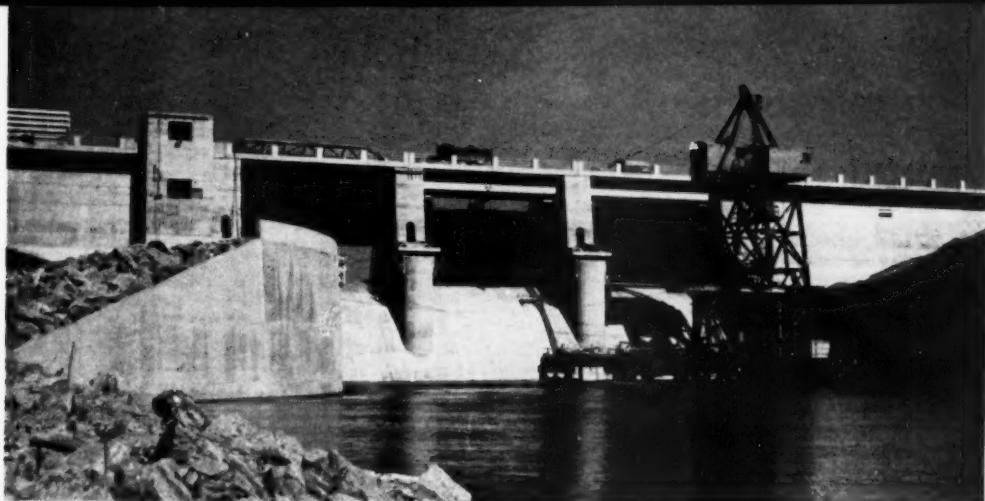
Beam strength, tire capacity and structural members are all engineered for reserve strength to assure long life and dependable trouble-free operation.



The Dorsey plant—one of the world's major producers of trailers. Here thousands of precision-built trailers roll off modern assembly lines each year. A system of rigid inspection at each stage assures Dorsey Dependability.

**LET YOUR DORSEY DISTRIBUTOR SOLVE YOUR HEAVY-TRANSPORTATION PROBLEMS—
DORSEY ENGINEERS ARE AT YOUR SERVICE!**

DURABLE DEPENDABLE DORSEY TRAILERS
ELBA, ALABAMA



Above—\$3,000,000 earth fill and concrete constructed at the Arnold Engineering Development Center by Arundel Corp., of Baltimore, and L. E. Dixon Co., of San Gabriel, Calif. Quantities included 60,700 cubic yards of concrete and 944,000 cubic yards of earth fill, as well as 31,500 cubic yards of rip-rap. The sluice gates have been closed and water is being impounded.

Construction Nears Peak at Tullahoma



Above—Top—Shipping and receiving warehouse was the first building finished at the Arnold Engineering Development Center. It was from this building that President Harry S. Truman, dedicated the center last June. Aro, Inc., the civilian A. E. D. C. contractor, has occupied the building since last fall.

Lower—The administration and engineering building contains 89,000 square feet of office space. A.E.D.C. personnel will occupy it in the late summer. Robert E. Maxey Construction Co., of Lubbock, Texas, is the contractor.

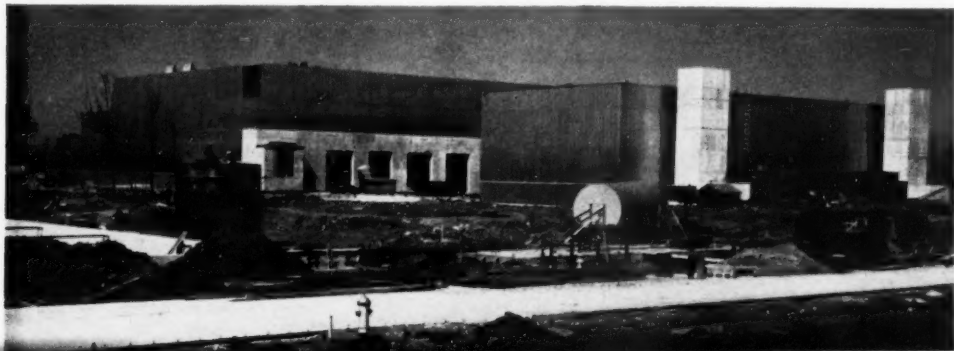
Below—The air compressor and test building and the exhaustor building at the A. E. D. C. engine test facilities. With this structure, turbo-jet and, later, ram-jet aircraft engines will be tested at simulated altitudes as high as 80,000 feet.

Despite metal shortages and the fitfulness of Tennessee weather, work on the Arnold Engineering Development Center's facilities goes ahead, with 1952 scheduled to be the peak construction year for that huge test center being built near Tullahoma by the Air Force.

The \$3,000,000 combination earth-fill and concrete dam, discussed in the November issue of *CONSTRUCTION*, is now complete. The sluice gates were closed on May 1. Water will be impounded up to an elevation of 935 feet above sea level. The water will stay at this height until December 1, at which time impoundment will start again. The water will be brought up to an elevation of 960 feet. Bringing it up to that elevation will take place over a period of months during the rainy season.

The automotive repair shop is under design by Buell-Roberts Associates, of Denver, Colo. This structure will be an industrial type building with steel framing and the most economical type of wall section. The foundation will be reinforced concrete. The shop is estimated to cost \$350,000 and will be designed along the lines of a similar type building at Limestone Air Force Base, Maine. Construction on the automotive repair shop

(Continued on page 18F)



Alabama Highway Proposals Amount to \$1,806,542

Proposals received early last month by the Alabama State Highway Department totaled \$1,806,542, including those in the following counties:

Barbour—9,656 miles bituminous treatments on county roads from Stinking Creek to Bullock County line and Blue Springs south to Dale County line, B. F. Williams Construction Co., Ozark, \$21,930;

Bibb—1042 of a mile bridge and culverts on road from West Blocton to Tuscaloosa County line, Montgomery Construction Co., Montgomery, \$54,208;

Blount—761 of a mile grading and drainage on county road between Inland and Locust Fork, Moss-Thornton Co., Leeds, \$58,356;

Bullock—592 of a mile overhead and approaches over Central of Georgia Railroad in Union Springs (U. S. Highways 82 and 29), W. A. McWaters, Montgomery, \$258,668;

Cherokee—8715 miles bituminous treatments on road from Blanche to Georgia state line, Couch Construction Co., Dothan, \$24,971;

Coffee—18,614 miles base and bituminous treatments on road from Alabama Highway 15 northwest to Pike County line; Geneva County line northeast to Alabama Highway 27, and Elba-Fish Pond road, B. F. Williams Construction Co., Ozark, \$137,771;

Colbert—2,555 miles grading, drainage and bituminous treatments on part of the Cherokee-Lane Springs road, Ballew and Roberts Construction Co., Sheffield, \$56,619;

Covington—7,888 miles base and bituminous treatments on road from Andalusia to Antioch, E. J. Cobb Construction Co., Montgomery, \$49,461;

Crenshaw—7,281 miles base and bituminous treatments on road from Dozier northwest through Leon, Vandigriff Construction Co., Montgomery, \$57,800;

Henry—.091 of a mile of bridges over Abbie Creek on county road south of

Abbeville, Couch Construction Co., Dothan, \$69,633;

Houston—8,277 miles grading, drainage and bituminous treatments from Pearce north and from Whaley Cross Road to Alabama Highway 52 near Columbia, Newell Brothers Construction Co., Hope Hull, \$143,476;

Jackson—643 of a mile bridge and approaches at Crow Creek north of Stevenson on U. S. Highway 72, W. A. McWaters, Montgomery, \$173,271;

Lauderdale—18,026 miles base and bituminous treatments on Alabama Highway 64 from Alabama Highway 5 (south of Green Hill) northeast through Lexington, George A. Dozier, Montgomery, \$244,533;

Lowndes—.026 of a mile overpass over Louisville & Nashville Railroad north of Fort Deposit, Montgomery Construction Co., Montgomery, \$24,522;

Marshall—3,707 miles base, bituminous treatments and plant mix on Boaz-Guntersville road, four-lane section, Couch Construction Co., Dothan, \$199,688;

Pickens—8,423 miles grading, drainage and bituminous treatments on part of Gordo-Fayette road, Newell Brothers Construction Co., Hope Hull, \$175,478;

Shelby—5,640 miles bituminous treatment on the county road from Columbiana south through Shelby, J. B. Maynard, Alexander City, \$18,687;

Tallapoosa—3,655 miles base and bituminous treatments on road from Daviston north to Clay County line, W. Henry Dear, Anniston, \$37,470.

United States Steel Studies New Steel Process

United States Steel is experimenting with a new type of steel making process which may someday have a highly beneficial effect on the Birmingham steel industry.

According to Dr. J. B. Austin, director

of research at U. S. Steel's Kearny, N. J., Research Laboratory, the company is conducting experiments with a turbo-hearth which gives promise of refining steel in 10 minutes which is comparable in quality with that produced in 10 hours in a conventional open hearth furnace.

Speaking recently at the Southern Research Institute's Symposium on Research, at Birmingham, Dr. Austin said that if the turbo-hearth proves practical and economical, as is now indicated, its use will be especially advantageous for use with ores high in phosphorus, such as those available in the Birmingham district.

Other experiments being currently conducted by United States Steel which may well have a profound influence on Birmingham steel production, Dr. Austin said, are those dealing with the effects of the economical concentration of low grade ores such as those found in large quantities.

T. C. I. Lets Contract for Office Building

E. C. Coston, contractor of Bessemer, Ala., has been awarded the contract for construction of a three-story office building at the Open Hearth Department of the Fairfield Steel Works.

Construction of the office building is in conjunction with the expansion of steel making facilities at the Fairfield plant, says L. C. Teague, purchasing agent for the Tennessee Coal and Iron division of United States Steel Co.

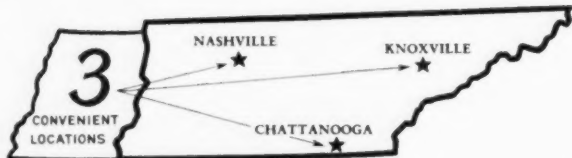
To be erected of steel and brick, the building will house offices of the open hearth superintendent and his staff and the open hearth branch of the Accounting Department. A large file room, assembly room and bathing and locker facilities are provided.

The building will be erected on the south side of the open hearth furnaces, facing Valley Road.

Shaw and Renneker are the architects.

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Left—View of the new bridge for the Seaboard Air Line Railroad across the Savannah River at Savannah, Ga. The bridge is being built without interruption to traffic and is about sixty-five per cent completed. The vertical lift span in the center is expected to go into use sometime in June, and the bascule span at the left will be removed later.

\$1,500,000 Railroad Bridge Pushed at Savannah

Construction of a new \$1,500,000 bridge across the Savannah River at Savannah, Ga., for the Seaboard Air Line Railroad is well along toward completion, and it is expected that the 229-foot vertical lift span will go into service sometime in June.

The new bridge is being constructed over the old one without interruption to traffic. Twin steel truss towers 190 feet high from the level of mean high water, and the vertical lift span, which will rise 135 feet from mean high water level, are being completed by the American Bridge Division of the United States Steel Corporation.

C. Y. Thomason, of Greenwood, S. C., and the McMeekin Construction Co., of Cheraw, S. C., are general contractors for the bridge structure. This is 586 feet long altogether, and includes a 60-foot deck-plate girder span on the south end, the two 145-foot tower truss spans, and the 229-foot vertical lift span.

After the lift span is in operation, further work will be done, consisting of the replacement of the 168-foot thru girder draw span and 125 feet of creosoted ballasted deck trestle with 4 new beam spans 42 feet long and 113 feet of concrete ballasted deck trestle, on the south end. The existing creosoted trestle on the north end will be replaced with 75 feet of new concrete ballasted deck trestle and the remaining trestle will be replaced with fill.

Construction of the bridge began in July, 1950, and is expected to be completed by the end of this year.

Procter-Gamble Subsidiary to Build at Foley

Procter & Gamble announced it has awarded contracts for the new \$20,000,000 project proposed at the Foley, Fla. plant of its Buckeye Cellulose Corporation subsidiary.

When completed in January, 1954, the plant will produce in the neighborhood of 300 tons of pulp daily. Cellulose pulp is used in a variety of products including rayon, plastics, film, quick drying paints and cellulose derivatives.

H. K. Ferguson Co., of Cleveland, Ohio, and Duvall Engineering & Contracting Co., of Jacksonville, will build the plant. Approximately one-half the wood to be processed will be secured from a 565,000-acre timberland tract recently acquired by the company.

The company has received a certificate of necessity authorizing it to accelerate amortization of construction costs.



Puts itself up!

NOBODY climbs anything, to erect the tower of the American Portable Material Elevator. The operator just moves a lever on his hoist, and the tower swings up into working position.

If you are still struggling with old-fashioned wooden scaffolds, think about this: the American Portable Material Elevator can be

taken down, moved and set up again in much less than one day. Standard height is 47 feet—10' extensions take it to 97 feet. Big 6' x 6' platform carries the wheelbarrows or concrete buggies; self-dumping concrete bucket carries $\frac{1}{2}$ yard. Platform speed is 90 feet per minute.

For full information see your American Hoist distributor.

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**Here's
how**

D Roadsters lick SAND jobs...



Florida Grade Separation

On railroad grade separation near Ft. Pierce, Finley P. Smith Constr. Co., Ft. Lauderdale, used 3 D Tournapulls to move 136,000 yds. of ball-bearing ocean sand. Push-loaded, the 3 "D's" averaged 33 trips (198 pay yds.) hourly over 3700-ft. cycles. With flotation advantage of low-pressure sand tires — plus the extra pull of their power-proportioning differential — rigs completed a cycle every 5 min. . . . averaged 9 m.p.h. over sandy haul roads which crossed railroad tracks and heavily-traveled highway.



Michigan Subdivision

Ham & Timmer had to move 100,000 yds. of pure blow sand for Grand Rapids real estate site. Material was abrasive . . . tough to load . . . with 200 to 250 lbs. rolling resistance. Contractors drove in their 7-yd. D Tournapull . . . its performance resulted in purchase of second rig. With positive power steer to shift footing as needed for better pull, each "D" completed 13 trips, delivered 71 pay yds. hourly on 2700-ft. cycles. That's a combined output of 1420 pay yds. per 10-hour day for the 2 rigs.



California Dam

To supply fine, dry, prepacked sand for Whittier Narrows Dam, Consolidated Products, Los Angeles, brought in this D Tournapull. "It doubled our production, delivering 75 tons of self-loaded sand an hour at an operating cost about 10% lower than trucks and a clam-shell," reports Manager A. C. Griffin. Ability of "D" to drive cross country eliminated building and maintaining of haul roads.



Michigan Race Track

Sugden & Sivier, Inc., of Hazel Park used 4 D Roadsters to level and grade 450,000 yds. for a race track near Detroit. In loose, abrasive sand, each "D" was push-loaded with 6 pay yds. in 30 sec. . . . averaged a 0.6-mile cycle every 3 min. . . . delivered 100 pay yds. hourly. Electric-control gave precision spreading "on the run" . . . 90° turns within 12' 9" cut important seconds off each cycle.



African Highway

On 70-mile highway construction in Senegal, Societe Francaise d'Entreprise de Dragages et de Travaux Publics got following production from 3 D Tournapulls which were self-loading in desert sand. On 1.4-mile cycles, each "D" completed 3.6 trips hourly, delivered 160 pay yds. per 8-hour day. On 0.5-mile cycles, each rig made 8.6 round trips hourly, hauled 380 pay yds. per day.



Swamp Reclamation

On swamp reclamation near Kalkaska, Mich., Leo Carroll moved 1800 yds. of gravelly sand in 1½ hours with his D Tournapull. Versatile "D", equipped with bulldozer blade, cleared trees and brush . . . then self-loaded 6 pay yds. of sand in 30 to 45 seconds . . . completed 1800-ft. cycle, including 300 ft. of 20% grade, in 2½ min. "D" made up to 24 trips (140 pay yds.) per hour.

You, too, can get this production, economy, and savings on your sand jobs. Let us show you more actual production figures of Le-Tournapull rigs . . . help you plan future jobs . . . or arrange a demonstration of D Tournapull on your job.

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Continued: Equipment Age, 11, 5, Feb. 68 DP-141-S-6

Twenty-Eight Tennessee Jobs Bid at \$4,291,869

Twenty-eight projects covered under \$4,291,869 in low proposals received by the Tennessee Department of Highways and Public Works included those in the following counties:

Benton—9.081 miles surfacing on secondary route 8042 between Rockport and Camden. Interstate Construction Co., Nashville, \$44,810;

Blount—Improvements of 6.056 miles and 7.584 miles on secondary routes 2427 and 2423. Harrison Construction Co., Merryville, \$40,762;

Carroll—State route 1, 2.381 miles. J. C. Michael and Co., Inc., Memphis, \$141,998;

Carroll—Widening and resurfacing

state route 77 and 1, 9.54 miles. J. M. Michael and Co., Inc., Memphis, \$304,061;

Carter—Rural road 3360 near Milligan College one-half mile. B. G. Young and Sons, Johnson City, \$11,812;

Cheatham—Secondary route 6152, 3.528 miles. Southern States Paving Co., Nashville, \$25,497;

Claiborne—Secondary route 2353, 5.127 miles. Claiborne Construction and Supply Co., LaFollette, Tenn., \$25,862;

Dyer—Rural road 9008, 8 miles. Forcum-James Construction Co., Dyersburg, \$14,566;

Gibson—Secondary route 8034, between Medina and Madison County line, 4.006

miles. Memphis Stone and Gravel Co., Memphis, \$25,802;

Gibson—Widening and resurfacing 8 miles state route 76 between Humboldt and Milan. Forcum-James Co., Dyersburg, \$241,296;

Gibson—State route 54 including cross-over near Trenton. Forcum-James Co., Dyersburg, \$42,968;

Grundy—Surfacing with crushed stone and bituminous materials on secondary route 4324, 5.02 miles. Southern States Paving Co., Nashville, \$26,356;

Hamilton—Bridge over South Chickamauga Creek on secondary route 4341 near Chattanooga. C. F. Rule Construction Co., Nashville, \$271,299;

Hayward—State route 76 between Brownsville and Jones station, 7.553 miles. J. M. Michael and Co., Inc., Memphis, \$270,169;

Hickman—10 miles of route 48 and 100 between Centerville and the Perry County line. Sam Finley, Inc., Atlanta, \$364,286;

Knox—Resurfacing 3.6 miles on section of Tazewell Pike between Greenway and Beverly Hills Sanitarium Road. Griffiths-Bell Paving Co., Knoxville, \$60,654;

Knox—Improvements on section of River Road near beginning at Kingston Pike near Concord St., and extending to Walnut St., within Knoxville, 2.533 miles. Knoxville Construction Co., Knoxville, \$50,605;

Lauderdale—Secondary route 8045 beginning east of Ft. Pillow State Prison Farm and extending to state route 19 near Ripley, 8.718 miles. McDowell and McDowell, Nashville, \$46,498;

Lauderdale—Secondary route 8046, 7.392 miles between Henning and Haywood County line. Memphis Stone and Gravel Co., Memphis, \$44,887;

Loudon—Secondary route 2429, 7.362 miles. W. T. Ratliff Co., Norris, Tenn., \$38,300;

Madison—Widening and resurfacing 12.68 miles of route 20, Warren Brothers Roads Co., Nashville, \$374,586;

Marion—Grading and drainage and crushed rock surfacing and bridge on state route 134. McDowell and McDowell, Nashville, \$188,108;

Obion—10.027 miles improvement between Union City and Kentucky line. R. B. Tyler Co., Louisville, Ky., \$348,055;

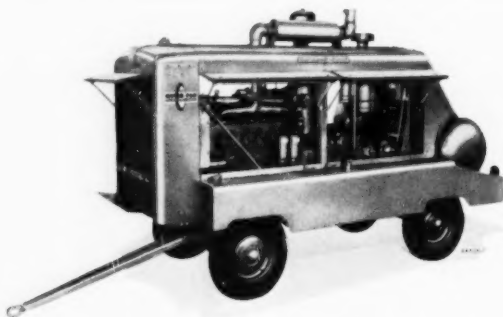
Perry—Bridge and approaches over Buffalo River near Louberville. C. F. Rule Construction Co., Nashville, \$236,641;

Rhea—State route 29 between Spring City to Roane County line, 9.920 miles. Wesco Paving Co., Chattanooga, \$289,657;

Tipton—Improvements on state rural road 8071, a distance of 11.85 miles. J. B. Michael and Co., Inc., Memphis, \$68,911;

Warren—8.5 miles on state route 56 including two bridges between McMinnville and Dibrell. Anderson-Gregory Co., Inc., Nashville, \$315,228;

Wilson—5.770 miles on state route 10 between Lebanon and the Hunter's Point Bridge. McDowell and McDowell, Nashville, \$297,574.



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DIVISION OF H. K. PORTER COMPANY, INC.
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Final Construction Figures Reflect Southeast Increase

Final official figures on construction operations in the Southeast last year just issued show a 14 per cent increase in the value of all building as compared with 1950, or a rise of from \$5,038,400,000 to \$5,770,800,000. Merrill C. Lofton, regional director of the U. S. Department of Commerce announced.

The figures, taken from both Federal and private agencies and compiled by the Commerce Department's building materials division of the National Production Authority in Washington revealed sharp advances in the value of nonresidential private construction, public utility outlays, and most types of public building activities, but proportionate decreases in money spent on private residential projects and highway expenditures.

New public construction activity nearly doubled, going from \$1,410,900,000 in 1950 to \$2,143,800,000 last year with all southeastern states sharing in the gain.

The State breakdown on the dollar value of all types of new construction in the area included only Georgia, Florida and Tennessee, all of which experienced gains. Georgia's expenditures went from \$477,400,000 in 1950 to \$529,300,000 in 1951, Florida's from \$633,100,000 to \$806,700,000, and Tennessee's from \$531,700,000 to \$708,400,000.

State-by-state data on public construction were supplied showing an increase of from \$119,600,000 to \$219,900,000 in

Florida, \$94,700,000 to \$151,800,000 in Georgia, \$224,200,000 to \$407,200,000 in Tennessee, \$164,500,000 to \$198,200,000 in North Carolina, \$63,500,000 to \$187,800,000 in South Carolina, \$83,500,000 to \$142,300,000 in Alabama, and \$56,600,000 to \$115,600,000 in Mississippi.

In new private building activity, the total expended in the Southeast dropped from \$3,658,400,000 in 1950 to \$3,627,000,000 last year with declines of from \$398,300,000 to \$377,500,000 in Georgia and \$304,200,000 to \$301,200,000 in Tennessee contributing to the overall decrease. In Florida, a rise of from \$563,500,000 to \$586,800,000 failed to offset the decline.

In new private residential construction, a drop of from \$2,160,800,000 to \$1,884,400,000 took place in the region with Florida, Georgia and Tennessee all reflecting decreases, Florida's from \$437,800,000 to \$431,100,000, Georgia, \$248,200,000 to \$216,300,000, and Tennessee, \$151,800,000 to \$133,500,000.

Gains of from \$70,200,000 to \$92,000,000 in Florida and \$66,700,000 to \$70,300,000 in Georgia were factors in the overall increase of from \$634,000,000 to \$758,300,000 in the Southeast in new private nonresidential building. This type of construction in Tennessee dropped from \$68,600,000 to \$66,300,000.

In the public utility field, an increase of from \$636,900,000 to \$760,600,000 came in the region, with Florida registering a gain of from \$38,200,000 to \$44,600,000, Georgia \$62,000,000 to \$68,200,000, and Tennessee from \$63,200,000 to \$81,400,000.

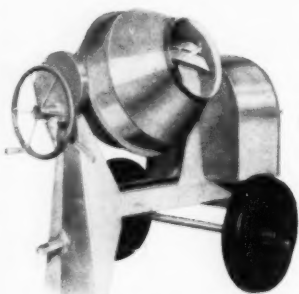
All States in the region showed advances in the value of new public nonresidential building for an overall gain in the region of from \$489,000,000 to \$869,400,000. They included from \$30,700,000 to \$41,800,000 in Florida, \$29,500,000 to \$33,500,000 in Georgia, \$122,500,000 to \$221,100,000 in Tennessee, \$71,500,000 to \$92,200,000 in North Carolina, \$17,200,000 to \$118,900,000 in South Carolina, \$29,700,000 to \$35,600,000 in Alabama, and \$20,900,000 to \$22,800,000 in Mississippi.

Other public work figures were:

Highways: Florida, \$48,400,000 in 1950 and \$84,900,000 in 1951, Georgia, \$36,400,000 and \$32,900,000, Tennessee, \$40,200,000 and \$37,500,000, North Carolina, \$71,700,000 and \$66,000,000, South Carolina, \$26,000,000 and \$28,700,000, Alabama, \$25,300,000 and \$26,500,000, and Mississippi, \$16,300,000 and \$33,800,000.

Sewer and water: Florida, \$16,100,000 in 1950 and \$19,000,000 in 1951, Georgia, \$6,800,000 and \$9,500,000, Tennessee, \$4,500,000 and \$13,200,000, North Carolina, \$7,200,000 and \$6,700,000, South Carolina, \$5,600,000 and \$8,000,000, Alabama, \$5,700,000 and \$10,600,000, and Mississippi, \$2,000,000 and \$7,300,000.

Other types of public construction: Florida, \$24,600,000 in 1950 and \$74,200,000 in 1951, Georgia, \$22,000,000 and \$75,900,000, Tennessee, \$57,000,000 and \$135,400,000, North Carolina, \$14,100,000 and \$33,300,000, South Carolina, \$14,700,000 and \$32,200,000, Alabama, \$21,800,000 and \$69,600,000, and Mississippi, \$16,500,000 and \$51,700,000.



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Dalon does industrial, commercial and residential grading in and around Atlanta, and most of their earth-moving fleet is "Caterpillar." They use two D8's, two D7's, two DW10's, three D4's and two "Cat"-powered Lorain shovels.

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WINSLOW CO., Fuel and Lube Oil Filters, Elements.

\$3,000,000 Work Planned in Key West Area

Improvement and expansion of berthing facilities at the Key West Naval Station, will be made this year by Naval Civil Engineers at a cost of about \$2,000,000, with an additional \$1,000,000 scheduled for the Naval Air Station at that Florida city.

Designs are being completed for the construction of five finger piers at the Naval Ordnance Depot and the reconstruction of five other piers in the submarine basin. The new piers will be 20 by 225 feet of permanent construction. Dredging work for adequate berthing facilities will be done. The utility lines serving existing piers also will be replaced to provide protection from hurricanes.

Dredging this summer is planned for the station. Approximately 375,000 cubic yards of dredging will provide a basin depth of 30 feet at some points and lesser depths elsewhere.

Also on the 1952 program at Key West are the reconstruction of badly deteriorated piling at the south end of the Naval Station Mole and the construction of a 50 by 600 foot marginal wharf between the mole and the main ship channel.

Construction of three major buildings to expand facilities at the Naval Air Station, will cost about \$1,000,000, and will be part of the 1952 improvement program for the headquarters of the Atlantic Fleet Air Operational Develop-

ment Force.

The combined architectural and engineering firms of Maurice Connell and Associates and Steward and Skinner are drafting plans and specifications.

A cold and dry storage building will be built as an annex to the existing Subsistence building to increase the efficiency of the galley and messing facilities. This will be a one-story building.

The other two buildings will be used for repair work. A transportation building and vehicle parking area will be established. The structure will provide 20,000 square feet of space in a two-wing building. Heavy equipment will be maintained in one wing and autos and trucks in the second wing. An office and parts room will be built between the wings. The parking area will be adjacent to the garage. This facility will eliminate the present use of sheds and the necessity of doing mechanical work on vehicles in the open.

Public Works shops and offices will be concentrated in a new addition to the present Public Works Building. This construction will make 30,000 square feet of space available for shops, offices, parts and tools and make possible economies in maintenance work.

The construction is under supervision of Capt. Walter T. Eckberg, CEC, USN, District Public Works Officer for the Sixth Naval District.

S.S.I.R.Co. Gets \$8,000,000 Contract from the Navy

An eight million dollar contract for pre-fabricated buildings has been awarded to Southern States Iron Roofing Co. by the United States Navy, acting as building procurement agency for the armed forces. The buildings will be used by the Army as multi-purpose buildings.

The contract calls for 4,000 complete rigid steel frame buildings ready for erection. They will be 20 feet wide and 48 feet long. Siding and roofing will be steel. Floors will be plywood, and the interior will be finished with wallboard panels. The buildings will be fully insulated with glass fiber insulation and will include windows, doors, and all other components for a complete building.

Designed particularly for fast erection by troops, the Southern States building is said to be erected in seven or eight hours by a six-man crew. It is light in weight and easy to package for overseas shipment. Other advantages are its low cost and adaptability.

The company has established a new 60,000 square foot fabricating plant in Memphis, Tennessee to manufacture the buildings. Production is beginning.

A metal fabricator for 37 years, Southern States has developed a number of metal buildings for domestic and export use. Thousands of its steel buildings were used by the armed forces for barracks and hospitals during World War II.

CRUSHED GRANITE*Tyrone Rock Products Company*

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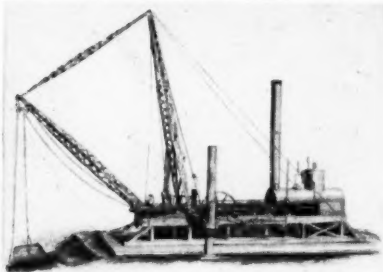
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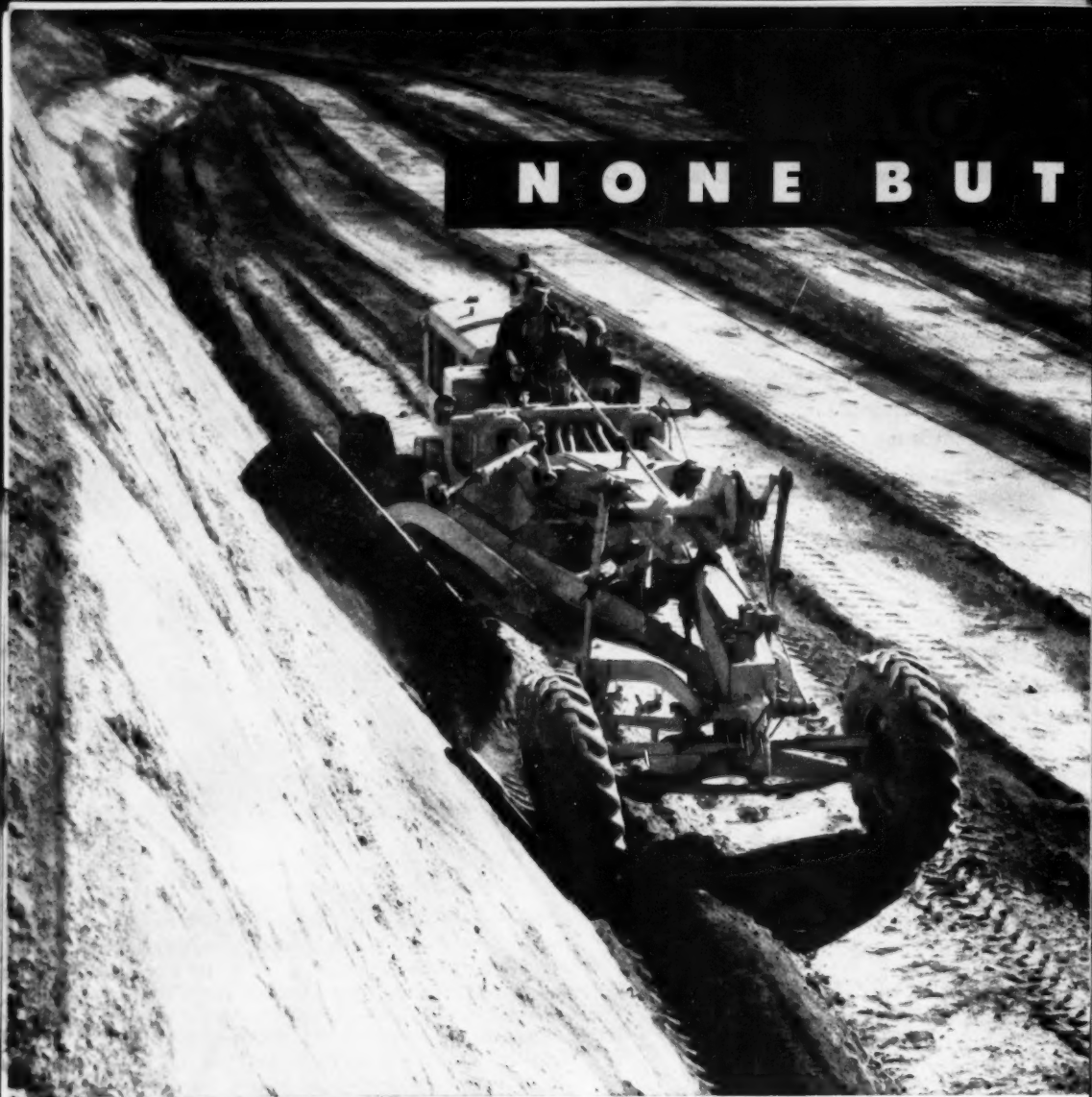
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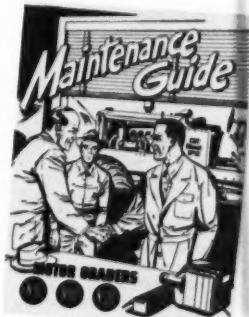
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Construction Nears Peak at Tullahoma

(Continued from page 11)

is scheduled to start some time during July.

Construction on the \$447,000 cafeteria began in March, 1952. This facility is under contract to Robert E. Maxey Construction Co., of Lubbock, Texas. Of single story height the building will be concrete and structural steel with brick walls. Its kitchen area will provide space for the preparation of 750 meals; the dining area will accommodate 375 people at one seating.

Construction of the industrial dispensary got under way last month. The facility is under contract to Blount Brothers, of Montgomery, Ala., for \$123,000. It will be a one-story brick building with accommodations for in and out patients. Its facilities will include an X-ray room, a pharmacy, a laboratory, an examination room, an emergency treatment room, and doctors' offices.

The model shop and laboratory annex is now being erected by the Robert E. Maxey company. One section of the building has one story and the other section has two stories. The one-story section will house the model shop, and the two-story section will be used for the photographic laboratory and temporary instrument shop.

The one-story section is being built with a structural steel frame covered with brick and metal siding; the two-story section is of reinforced concrete

with brick walls.

The Maxey company contracted to build the model shop and laboratory for \$1,900,000, including equipment. The laboratory section will be air-conditioned; the model shop section will be mechanically ventilated.

Plans are now under way for a ram-jet addition to the twenty-million-dollar engine test facility, which was discussed in the article on Arnold Engineering Development Center in the November issue of CONSTRUCTION. The engine test facility is now nearing completion.

Testing of ram-jet engines will be provided for in the ram-jet addition. To meet the testing requirements on ram-jets, both air flow capacity and exhaust capacity had to be increased.

The air section driving power in the ram-jet addition is 75,000 horsepower. In the exhaust section it is 54,000 horsepower. A heater to boost the air inlet temperature to 1200 degrees Fahrenheit will be installed. Three altitude test chambers are planned for the ram-jet addition. Completion of a compressor building, an exhaust building, and three test buildings is scheduled for March 1954.

During 1952 construction will start on six components of the gas dynamics facility, the facility for aerodynamics development and evaluation of models of supersonic aircraft and guided missiles now under development and under con-

sideration for the future. Consolidated Western Steel Corp., of Los Angeles, Calif., has the contract for building the gas dynamics facility and installing the equipment.

Construction on some of the components of the propulsion wind tunnel will begin during 1952. This facility will include the motor drive building, the test section building, and the office building. Contract for the motor building and outside crane runway has been let to Blount Brothers, Montgomery contractor, for \$707,000. The transonic control building will be designed and construction will start on it some time during this year.

The Arnold Engineering Development Center is now under the command of Col. Charles K. Moore.

Southern Representative Appointed by Cincinnati

Appointment of a new representative covering southern states is announced by Cincinnati Cleaning and Finishing Machinery Co., Ironton, Ohio. C. E. Holmes, 831 N. 20th Street, Birmingham, Ala., will represent the company in Alabama, Tennessee, Georgia, Louisiana and Mississippi. He comes to Cincinnati with a background of more than fifteen years in metal cleaning and finishing.

Holmes will maintain his office at his present Birmingham location. As Cincinnati's representative, he will handle their complete line of metal cleaning machines and finishing systems.



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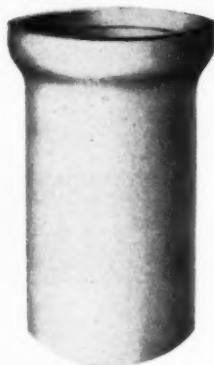
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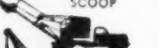
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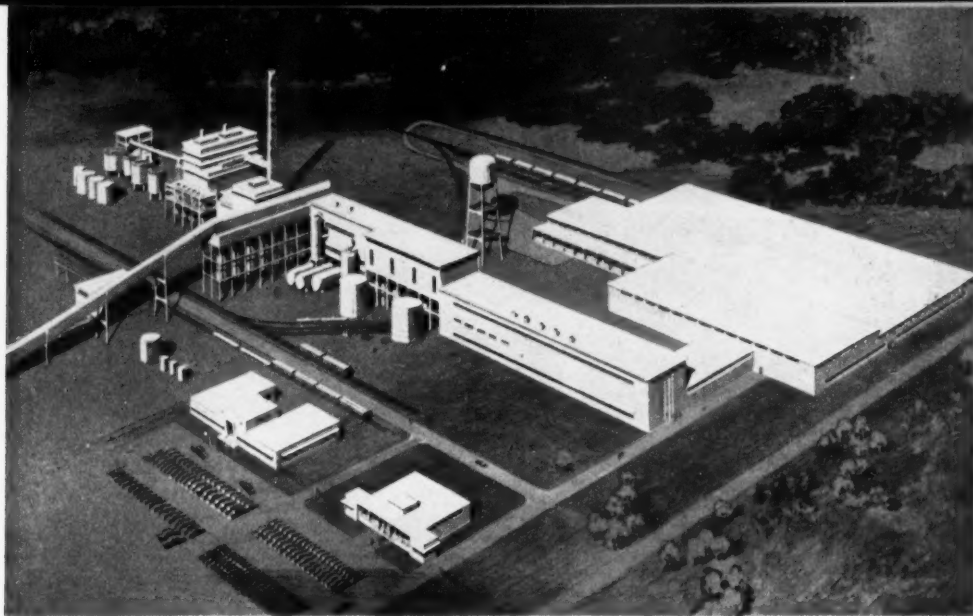
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Above—Rayonier, Inc., of New York, will erect the pulp mill pictured above on a 530-acre site at Doctortown, Ga. Estimated to cost \$25,000,000, the project will use an improved process permitting production of superior grades of wood cellulose. Ebasco Services, Inc. are the design engineers and construction managers.

SOUTHERN construction made an upward swing to \$462,394,000 in April, bringing the total for the first four months of 1952 to \$1,649,497,000.

The April figure is the highest for the elapsed months of the year and represents a gain of eight per cent when compared with the preceding month and of about forty-six per cent above the figure for the fourth month of last year.

Figures tabulated from reports in the daily construction bulletin of the MANUFACTURERS RECORD show the \$1,649,497,000 total for the four months to be thirty-six per cent below its 1951 counterpart. However, it is substantially above the totals for similar periods in prior years. The total for the first one-third of 1949 was \$872,603,000; for the same period of 1948, \$864,872,000.

The four-month construction picture embraces \$558,165,000 for industrial construction; \$336,645,000 for public building; \$307,300,000 for private building; \$261,627,000 for heavy engineering type construction and \$185,760,000 for highways and bridges. Public building, heavy construction and highways all show increases.

With its \$336,645,000 total, public building in the current four months represents a twenty-two per cent gain when compared with similar work in the first four months of last year.

Heavy engineering construction so far this year also shows a substantial increase. The current \$261,627,000 is up twenty-three per cent above heavy projects awarded in the same months of 1951.

Highway and bridge projects reaching the contract stage in the elapsed four months of 1952 amount to \$185,760,000. This figure is more than eight per cent higher than the value of such work in the same period of last year. Several

April Contracts Total \$462,394,000

lettings held late in the month are not included.

Private building, ranking third among the five construction categories, for the four months, embraces \$265,890,000 for residential building; \$20,210,000 for assembly buildings; \$11,437,000 for office buildings; and \$9,763,000 for commercial buildings. The residential figure is slightly larger than the value of similar work in last year's first four months.

Public building was the second largest in value, with its \$336,645,000. It included \$225,551,000 for government buildings and

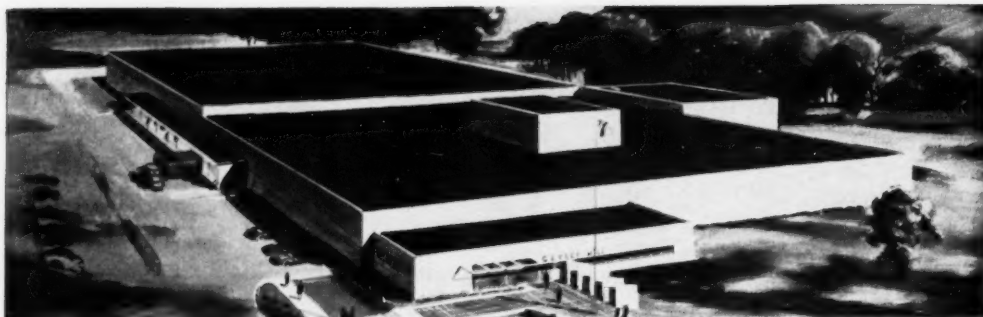
\$111,094,000 for schools. At this time last year, the school classification represented expenditure of \$129,899,000; other government-financed buildings, \$145,643,000.

Heavy engineering construction's \$261,627,000 value is made up of \$188,534,000 for dams, drainage, earthwork and airports; \$48,267,000 for sewer and water work; and \$24,826,000 for government electric projects. Figures recorded at the end of the first third of last year, in the same order, were \$130,501,000; \$66,713,000 and \$15,076,000.

(Continued on page 20)

SOUTH'S CONSTRUCTION BY TYPES

	April, 1952 Contracts Awarded	Contracts to be Awarded	Contracts Awarded First Four Months 1952	Contracts Awarded First Four Months 1951
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	\$6,061,000	\$12,014,000	\$26,210,000	\$30,464,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	1,094,000	1,360,000	9,763,000	24,507,000
Residential (Apartments, Hotels, Dwellings)	76,222,000	37,160,000	265,890,000	261,339,000
Office	747,000	5,536,000	11,437,000	22,194,000
	\$84,124,000	\$56,090,000	\$307,300,000	\$338,564,000
INDUSTRIAL				
	\$129,468,000	\$726,772,000	\$558,165,000	\$1,620,081,000
PUBLIC BUILDING				
City, County, State, Federal and Hospitals	\$54,715,000	\$269,918,000	\$225,551,000	\$145,643,000
Schools	45,326,000	31,279,000	111,094,000	129,899,000
	\$100,041,000	\$321,197,000	\$336,645,000	\$275,542,000
ENGINEERING				
Dams, Drainage, Earthwork, Airports	\$60,351,000	\$54,160,000	\$188,534,000	\$130,501,000
Federal, County Municipal Electric	5,458,000	27,445,000	24,826,000	15,076,000
Sewers and Waterworks	12,361,000	14,698,000	48,267,000	66,713,000
	\$78,170,000	\$96,303,000	\$261,627,000	\$212,290,000
ROADS, STREETS, BRIDGES				
	\$70,591,000	\$199,396,000	\$185,760,000	\$171,444,000
TOTAL	\$462,394,000	\$1,399,758,000	\$1,649,497,000	\$2,617,861,000



Above—Gayley Mills division of Deering, Milliken & Co., Marietta, S. C. A tricort knitting, dyeing and finishing plant, the project contains 185 square feet. Daniel Construction Co., Inc., of Greenville and Birmingham, were the contractors.

April Contracts Total \$462,394,000

(Continued from page 19)

April's \$462,394,000 is the high point of the year so far. Totals for the other months of 1952 are \$323,061,000 for Janu-

ary; \$436,743,000 for February and \$427,299,000 for March. The average for the four months is \$412,374,000 as compared with the \$654,445,000 average for the cor-

responding period of last year.

The April figure comprises \$129,468,000 for industrial projects; \$100,041,000 for public building; \$84,124,000 for private building; \$78,170,000 for heavy engineering projects and \$70,591,000 for highways and bridges. Industrial and private building award values are down, the other three represent increases.

Most spectacular increase in April was that of highways and bridges, which was up more than seventy-seven per cent, when compared with the value of such work in the preceding month and sixty-seven per cent above the total for April of last year.

Public building was up sixty-three per cent in April, this above the figure for the month before. Compared with the public building award valuation of April, 1951, the current figure is seventy-two per cent larger.

The public building total of \$100,041,000 includes \$54,715,000 for government buildings and hospitals, and \$45,326,000 for school buildings. Totals registered for these two subdivisions in the preceding month were \$43,855,000 and \$17,459,000, respectively.

Heavy engineering type construction, the April total for which was forty-six per cent larger than the value of such work in March and just slightly above the figure for April of last year, embraces \$60,351,000 for dams, drainage, earthwork and airports; \$12,361,000 for sewer and water work and \$5,458,000 for government electric projects.

Considering the several engineering type subdivisions separately, the \$60,351,000 for dams, drainage, earthwork and airports is seventy per cent larger than the figure for such work in the preceding month. Government electric projects rose to \$5,458,000 from \$1,443,000, the latter the low point for the year so far. Sewer and water work dropped about twenty-one per cent from the value of the preceding month.

Private building, with its \$84,124,000 total, was made up of \$76,222,000 for residential construction; \$6,061,000 for assembly buildings, including churches; \$1,094,000 for commercial structures, and \$747,000 for office buildings. In the prior

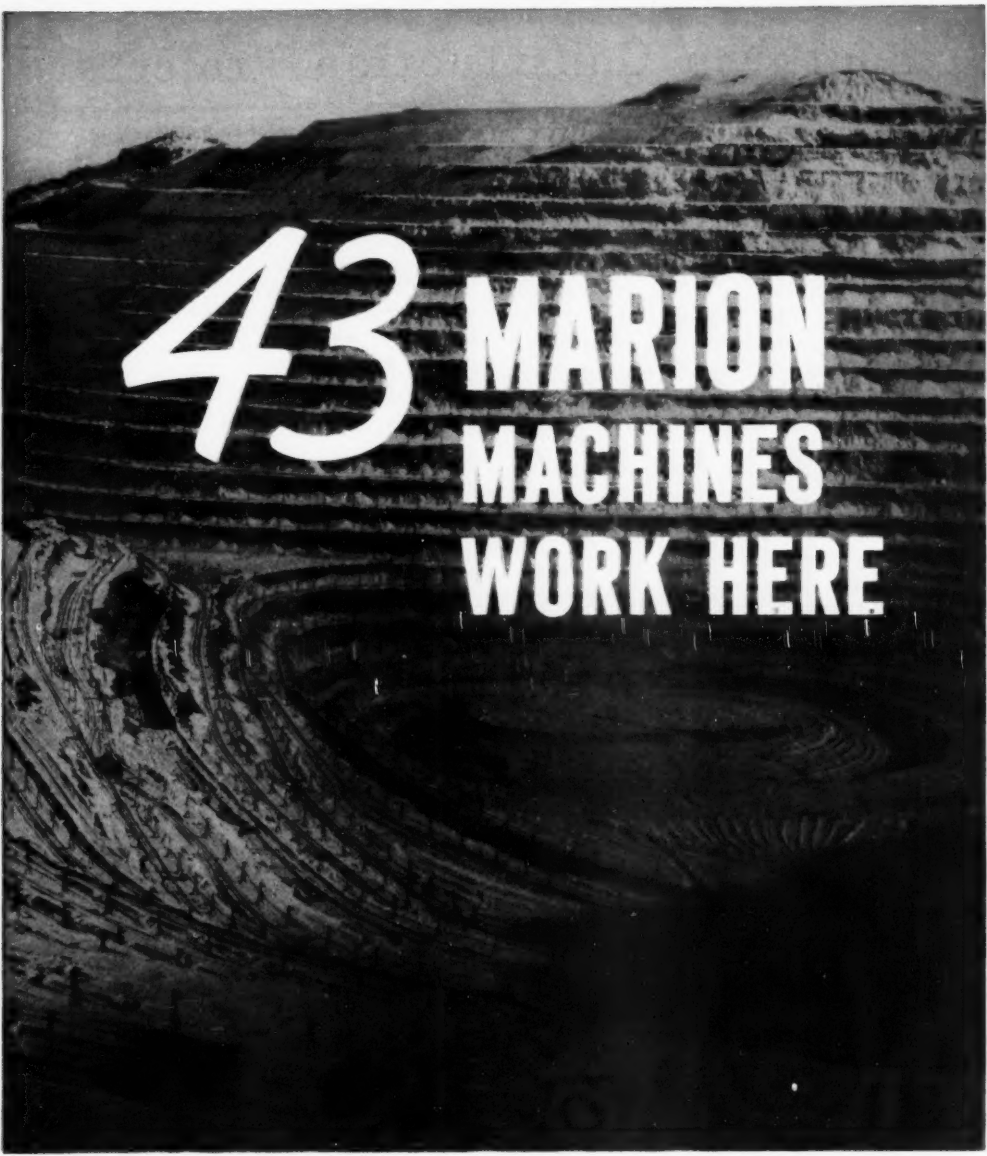
(Continued on page 56)

SOUTH'S CONSTRUCTION BY STATES

	April, 1952	Contracts to be Awarded	Contracts Awarded First Four Months 1952	Contracts Awarded First Four Months 1951
Alabama	\$72,001,000	\$11,479,000	\$105,117,000	\$138,233,000
Arkansas	13,198,000	60,320,000	30,481,000	77,990,000
Dist. of Col.	971,000	18,205,000	26,380,000	15,356,000
Florida	60,996,000	485,082,000	186,130,000	136,065,000
Georgia	45,291,000	24,456,000	111,999,000	56,525,000
Kentucky	9,440,000	27,657,000	43,571,000	390,726,000
Louisiana	27,989,000	61,989,000	148,108,000	226,207,000
Maryland	37,181,000	79,099,000	163,066,000	185,031,000
Mississippi	7,390,000	10,715,000	49,360,000	76,978,000
Missouri	7,722,000	14,350,000	34,695,000	90,771,000
N. Carolina	17,316,000	13,538,000	90,668,000	76,633,000
Oklahoma	9,966,000	28,263,000	43,020,000	26,867,000
S. Carolina	12,170,000	6,995,000	42,868,000	406,951,000
Tennessee	15,149,000	23,636,000	61,075,000	82,172,000
Texas	93,471,000	367,246,000	382,841,000	495,625,000
Virginia	29,199,000	56,995,000	92,322,000	110,915,000
W. Virginia	2,941,000	109,733,000	37,396,000	30,886,000
TOTAL	\$462,394,000	\$1,399,758,000	\$1,649,197,000	\$2,617,861,000

Below—New plant built at Wallace, N. C. for Carter Fabrics division of J. P. Stevens & Co., Inc. by C. M. Guest & Sons. Charles C. Hartmann was the architect.





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Chattanooga, Tennessee

Southern Construction Projects

(Typical and Important Reports Excerpted from Daily Construction Bulletin)

Atomic Energy Commission announced plans for a fifth atomic explosives plant, cost approximately \$1,000,000,000; new plant will be a uranium separation works; several sites under consideration.

ALABAMA

Tennessee Coal and Iron Division of United States Steel Co. announced plans for expenditure of approximately \$500,000 for removal of silt deposits from Camp Branch of Bayview Reservoir.

Defense Production Administration issued certificates of necessity for industrial expansion to following: Simms Brothers Towing Co., Mobile, \$90,714, water transportation; Cleaners Hanger Co., Gadsden, \$30,000, ordnance parts; Filtril Corp., McIntosh, \$864,340, \$1,057,084 and \$403,121, activated absorbents; Mansanto Chemical Co., Anniston, \$211,000, toluene disocyanate; Sloss-Sheffield Steel & Iron Co., Birmingham, \$73,170, benzene; Reynolds Alloys Co., Listerhill, \$309,625, aluminum sheet and foil; Pullman-Standard Car Manufacturing Co., Bessemer, \$506,533, freight cars; Warren Petroleum Corp., Mobile, \$40,196, dock services; Alabama Grain Elevator Co., Mobile, \$1,917,801, grain storage; Goodyear Tire & Rubber Co., Gadsden, \$256,060, military truck tires.

ANNISTON—Housing Authority let contract to C. A. Paul, Birmingham, at \$1,729,000 for 2 housing projects, 272 units; Richard Bolinet, 1021 Montvue Ave., Anniston, Ala., Archt.

ANNISTON—City Board of Education let contract at \$162,820 to Borders Construction Co., Gadsden, for North Anniston Elementary School.

ATLANTA—City let contract at \$80,133 to Parsons Brothers, 7500 1st Ave., Birmingham, for sanitary sewers; Poligaze & Basenberg, 812 S. 27th Ave., Birmingham, Engr.

BIRMINGHAM—Berney Points Baptist Church plans sanctuary, \$125,000.

BIRMINGHAM—Sixty-seventh Street Methodist Church Congregation plans building, \$120,000.

BIRMINGHAM—Birmingham Realty Co. let contract to Brice Building Co., for frigidaire plant building, \$400,000.

BIRMINGHAM—Board of Education plans boys' gymnasium, Woodlawn High School, \$400,000.

CAMP BECKER—Purchasing and Contracting Office let contract to Bell & William, Montgomery, Ala., at \$863,311 for temporary housing, #Aia I-D and I-D 2.

CAMP BECKER—Corps of Engineers, Mobile, let contract to George C. Parker, Ozark, at \$608,884 for additional facilities.

FOLEY—Navy Department received low bids from Smith Engineering & Construction Co., Pensacola at \$103,900 for repair and resurfacing runways and taxiways, Auxiliary Air Station.

FOLEY—Navy Department, Public Works Office, Pensacola, received low bid from Miami Roofing & Sheet Metal Co., Miami, Fla., at \$265,054 for rehabilitation and repair of 18 buildings, Auxiliary Air Station.

FORT McLELLAN—U. S. Engineer Office, Mobile, plans WAC Base, \$10,000,000.

LANETT—City received low bid of \$133,603 from M. G. Aldridge, Macon, Ga., for sanitary sewers and sewage pumping station and sewage force main.

MOBILE—Housing Authority let contract to Batson-Cook Co., West Point, at \$8,433,450 for housing project.

MONTGOMERY—Church of Ascension plans addition, \$250,000.

MONTGOMERY—J. Paul Gilmore, Archt., has plans in progress for office building, \$250,000.

MONTGOMERY—Gov. Gordon Persons announced new Alabama Air National Guard Base will be built at Donnelly Field, cost between \$1,500,000 and \$2,000,000.

NORMAL—State Board of Education received low bid of \$133,559 from Butler & Cobbs, Montgomery, for dormitory at A & M College.

OZARK—City Board of Education received low bid of \$158,737 from Henderson Black & Green, Troy, for addition to colored school.

SELMA—Methodist Children's Home plans two cottages, \$100,000.

SYLACAUGA—Housing Authority let contract to Batson-Cook Co., West Point, Ga., at \$1,003,000 for 144 unit housing project, #Aia, 57-1.

TROY—Pike County plans courthouse, \$500,000.

TUSCALOOSA—Board of Education let contract at \$172,500 to Adams & Baker, Tuscaloosa, for Alberta Elementary School.

TUSCALOOSA—University of Alabama received low bid of \$386,916 from Brice Building Co., Birmingham, for union building.

ARKANSAS

National Production Authority allotted materials for industrial construction during second quarter of 1952 to following firms: Aluminum Company of America, Bauxite, \$33,800, refined aluminum ore; Reynolds Metals Co., Bauxite, \$2,134,000, aluminum; Reynolds Metals Co., Gum Springs, \$56,500, primary aluminum pig; Victor Metal Products Corp., Newport, \$1,850,000, collapsible tubes; Harding Glass Co., Fort Smith, \$2,163,267, flat drawn sheet glass; Crossett Chemical Co., Crossett, \$165,000, tall oil.

BATESVILLE—Westmoreland Manganese Corp., O. E. Sellers, Pres., signed contracts totaling approximately \$1,500,000 with Defense Materials Procurement Administration, Washington, D. C., for construction and operation of a plant for beneficiating high grade manganese ores from the Batesville-Cushman area.

EL DORADO—Lion Oil Co. plans new chemical plant, cost of \$31,000,000 known as Barton Plant and located at Luling, La.

FORREST CITY—Woodruff Electric Cooperative Corporation has REA loan of \$825,000 for 136 miles of distribution line.

HOT SPRINGS—Westinghouse Electric Corp. to start work soon on incandescent light bulb manufacturing plant at Lake Catherine, \$6,000,000.

JEFFERSON COUNTY—Corps of Engineers received low bid of \$319,056 from Cleo T. Watts, Rochdale, Miss., for approx. 1,104,000 cu. yds. of earthwork on north bank of Arkansas River.

JONES MILL—General Motors has NPA approval for \$3,000,000 aluminum castings plant.

SHUMAKER—Navy Department, New Orleans, La., let contract to Brock Construction Co., 11521 E. 19th St., Independence, Mo., at \$2,694,930 for inert storehouses.

SHUMAKER—Navy Department, New Orleans, La., let contract to W. H. M. S., a combination consisting of Winston Brothers Co., Minneapolis, Minn., C. F. Haglin & Sons, Inc., Minneapolis, Minn., Missouri Valley Constructors, Inc., Leavenworth, Kans., and Solitti Construction Co., South Bend, Ind., at \$8,677,000 for 151 smokeless powder magazines.

SHUMAKER—Navy Department, New Orleans, La., let contract to Winston Brothers Co., C. F. Haglin & Sons Co., Missouri Valley Constructors, Inc., and Solitti Construction Co., Inc., Minneapolis, Minn., (joint venture), at \$7,107,000, on basis of Item 2, for high explosive magazines and detonator magazines.

DISTRICT OF COLUMBIA

BELLEVUE—Navy Department received low bid from J. E. Peters Construction Co., Washington, at \$102,907, Item 1, for 2-story addition and penthouse Naval Research Laboratory.

WASHINGTON—Public Buildings Service let contract to Koolair Co., at \$153,700 for alterations.

WASHINGTON—Veterans Administration plans 500-bed hospital on Soldiers Home grounds, \$7,500,000.

WASHINGTON—Nine schools are planned for first year construction in 6 year \$52,771,000 school program outlined by District Commissioners, first year estimated cost \$13,850,000.

WASHINGTON—Financial campaign underway to raise funds for construction of Providence Hospital which will be located at 12th and Varnum Sts., N.E., \$7,000,000.

WASHINGTON—District Commissioners received low bid from Wertheimer Construction Corp., Washington, at \$231,931 for new central kitchen, Industrial Home School.

FLORIDA

National Production Authority allotted materials for industrial construction during

second quarter of 1952 to following firms: General Portland Cement Co., Tampa, \$3,600,000; Lehigh Portland Cement Co., Bunnell, \$11,662,290; Arizona Chemical Co., Panama City, \$1,000,000; E. I. duPont de Nemours Co., Pensacola, \$84,414,000; Naco Fertilizer Co., Fort Pierce, \$650,000; St. Regis Paper Co., Pensacola, \$2,466,878; Superior Electrical Industries, Hollywood, \$1,200,000; Container Corporation of America, Fernandina, \$4,100,000; St. Regis Paper Co., Cantonment, \$10,000,000; Buckeye-Celulose Corp., Foley, \$28,979,000; Hudson Pulp & Paper Corp., Palatka, \$618,300; St. Joe Paper Co., Port St. Joe, Kraft paper, paper board, Rayonier, Inc., Fernandina, \$218,480; St. Regis Kraft Corp., Eastport, \$16,750,000.

AVON PARK—Gov. Fuller Warren and State Cabinet approved construction of hospital for chronic alcoholics; asked State Improvement Commission, Tallahassee, to proceed with plans and specifications; \$500,000 available.

BARTOW—Polk County School Board sold \$3,000,000 bond issue for school construction.

CECIL FIELD—Navy Department, Charleston, S. C., received low bid from Smith Co., Jacksonville, at \$196,760 for addition to aviation fuel storage.

COGUA—Corps of Engineers, Jacksonville, received low bid from Bradford Builders, Miami Beach, at \$195,884 for interference control buildings and mess hall, Air Force Missile Training Center.

COGUA—Corps of Engineers, Jacksonville, received low bid from Bradford Builders, Miami Beach, at \$131,691, for special projects assembly and preparation building.

DADE COUNTY—Eastern Airlines, Inc., received low bid from Winters Construction Co., Hialeah, at \$311,543 for footings and foundations, maintenance building, 36th Street Airport.

EGLEN FIELD—Corps of Engineers, Mobile, Ala., received low bid from Paul Smith Construction Co., Box 87, Tallahassee, at \$3,543,462 for airman's quarters and mess facilities.

EGLEN FIELD—Corps of Engineers, Mobile, Ala., received apparent low bid from Greenhut Construction Co., Box 1175, Pensacola, at \$1,413,799 for barracks and combination mess and administration buildings.

EGLEN FIELD—Corps of Engineers, Mobile, Ala., received low bid from R. E. Clarson, P. O. Box 387, St. Petersburg, at \$1,671,100 for engineering building.

FOLEY—Buckeye Celulose Corp., let contract to H. K. Ferguson Co., 1783 E. 11th St., Cleveland, Ohio and Duval Engineering & Contracting Co., Jacksonville, for \$20,000,000 cellulose pulp mill.

GAINESVILLE—Board of Control, received low bid of \$1,623,983 from Beers Construction Co., 70 Ellis St., Atlanta, Ga., for student hall.

HOLLYWOOD—Board of Commissioners of South Broward Hospital District, let contract to Gust E. Newberg Construction Co., Miami, at \$337,627 for 100-bed hospital.

JACKSONVILLE—Southern States Oil Company plans \$250,000,000 expansion of storage facilities.

LAKE PLACID—Miami YMCA plans \$107,000 boys' camp.

MELBOURNE—City to release plans for bids in several months for new sewer, sewerage repairs, sewerage disposal, water works extension, water main extension, \$600,000.

MIAMI—Weathermark Manufacturing Co., Limited, Opa-Locka Naval Air Station, Opa-Locka, received low bid from Fidelity Construction Co., at \$126,400 for warehouse.

MIAMI—City received low bid of \$1,084,509 from Price Brothers Co., Dayton, Ohio, for rein. concrete pipe.

MIAMI—Water & Sewer Board, received low bid of \$208,501 from U. C. Pipe & Foundry, Birmingham, Ala., for cast iron pipe and fittings.

MIAMI—Dade County Commissioners let contract to Duffey Construction Co., Inc., at \$363,167 for nurses housing, Jackson Memorial Hospital.

MIAMI—Harving Realty Co., Milwaukee, Wis., and Harry Forman Construction Co., 229 E. Wisconsin, Milwaukee, Wis., Principals, let contract to Hamilton Construction Co. at \$1,630,000 for Post Office Building.

MIAMI—City let contract at \$282,559 to Joe Reinertson, 2027 NW 7th Ave., for storm

(Continued on page 24)



**Ant's-eye view
of**



SOUND CONSTRUCTION

**Made for LONG SERVICE LIFE with
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Strength and durability in the basic foundation builds soundness into your construction jobs. That's why Amcreco Creosoted Products are selected from the soundest timber — pressure treated by an advanced technique based on the Lowry Process—to assure enduring, long-lasting bridge work and freedom from maintenance troubles. As an added benefit, Amcreco Creosoted Piles, Framed Bridge Timbers and Planking economize in first cost, permit speedier erection. For economical "life insurance" on your next bridge job, specify Amcreco.

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GENERAL SALES OFFICE — CHICAGO, ILLINOIS

Southern Construction Projects

(Typical and Important Projects Excerpted from Daily Construction Bulletin)

FLORIDA

(Continued from page 22)

sewers and pumping station, District-SR-317.
ORLANDO—Corps of Engineers received low bid from Girvin & White, Jacksonville, at \$129,574 for additional utilities, Pinecastle Base.

ORLANDO—Corps of Engineers, let contract to R. E. Clanton, Inc., St. Petersburg at \$231,860 for bachelor officers quarters, Pinecastle.

ORLANDO—Housing Authority let contract to Fred Howland, 1451 N.W. 20th St., Miami at \$1,388,959 for 190 unit negro housing project, Vineland Court.

ORLANDO—Corps of Engineers, received apparent low bid from American Bridge Div., U. S. Steel Co., Atlanta, Ga., at \$1,216,600 for fabricating and erecting structural steel for maintenance hangars, Pinecastle.

PANAMA CITY—First Methodist Church let contract to Albritton-Williams, Quincy, Fla. at \$109,950 for Sunday School.

ST. AUGUSTINE—Board of Control let contract at \$321,740 to Arthur Perry, Inc., Jacksonville for gymnasium at Florida School for Deaf & Blind.

TAMPA—Peninsular Telephone Co., plans expenditures of \$6,000,000 for construction during 1952.

GEORGIA

Defense Production Administration issued certificates of necessity for industrial expansion to following: Cox Foundry & Machine Co., Atlanta, \$138,750; Macon Iron & Paper Stock Co., Macon, \$34,850; American Cyanamid Co., Savannah, \$13,875,000; Refrigerated Transport Co., Inc., Fulton, \$105,000.

ADEL—Housing Authority let contract to W. B. Johns Co., Box 3544, East Atlanta, Ga. at \$283,290 for housing project.

ALBANY—Navy Department, let contract to Wright Contracting Co., Columbus, at \$667,657 for streets, water lines, sanitary and storm sewers.

ALBANY—Navy Department received low bid from Thompson & Street, Grannis & Sloan & Ralph Wattinger, Charlotte, N. C., at \$1,676,600 for gate houses, administration building, barracks and subsistence building.

AMERICUS—Hospital Authority received low bid from E. A. Scott & Sons, Americus at \$231,304 for hospital.

ATLANTA—Department of Justice let contract to Gilbert Beers, Inc., 489 Bishop St., N.W., Atlanta, at \$267,500 for penitentiary power plant.

ATLANTA—Housing Appropriation Committee recommends \$3,000,000 appropriation for continuing construction of Buford Dam.

ATLANTA—House Appropriations Committee recommended expenditure of \$4,100,000 for work on Clark Hill dam during 1952-53 fiscal year.

AUGUSTA—Augusta Hospital Authority, University Hospital, let contract to J. C. Stockton & Son, Augusta, at \$821,000 for administration building and at \$85,000 for store room.

AUGUSTA—Richmond County Board of Education let contract at \$324,421 to J. C. Stockton & Son, for Wheelless Road School.

COLUMBUS—City sold \$2,250,000 bond issue for water improvements.

COLUMBUS—Board of Education received low bid of \$198,600 from T. H. Pearce & Co., for South Elementary School.

COLUMBUS—Board of Education let contract at \$149,800 to D. E. Newsome for Lynch Road School.

CONYERS—Rockdale County Board of Education let contract at \$118,850 to Hardin & Traver, 354 Robin Hood Rd., Atlanta, for vocational building.

ELIJAH—Peerless Textiles, Inc. announced plans for erection of four buildings, \$1,000,000 each.

FORT BENING—Corps of Engineers, Savannah, let contract to Jordan Contracting Co., Box 1179, Columbus at \$135,524 for engineering building and classroom.

FORT BENING—U. S. Engineer Office let contract to Wright Contracting Co., Columbus, at \$341,065 for Uptown Creek bridge and approaches.

GRIFFIN—Dundee Mills, Inc., J. M. Cheatham, Pres., to start work on new 3-story textile mill, \$1,343,000.

MOUNT BERRY—Berry Schools let contract at \$339,740 to J. P. Roberts, Rome, for boys dormitories.

RICHMOND COUNTY—Richmond County Board of Education received low bid of \$324,421 from J. C. Stockton & Sons, 1316 Wilson St., Augusta, for Wheelless Road School.

ST. MARY'S—St. Mary's Railroad Co. has D.P.A. authority for expanding railway service at \$139,319.

SAVANNAH—Corps of Engineers let contract to Wright Contracting Co., Columbus, at \$2,266,589 for parking aprons and overlays, Hunter Base.

SAVANNAH—Corps of Engineers let contract to Savannah Machine & Foundry Co., at \$617,650 for structural steel for hangar, Hunter Base.

SAVANNAH—Atlantic Refining Co., has D.P.A. authority for expansion, \$337,895.

KENTUCKY

State Department of Health announced plans for Health Centers at Owensboro, Bowling Green, Glasgow, Flemingsburg, Cynthiana, Maysville, London, Murray and Mayfield, \$60,000 each.

Corps of Engineers let contract to McAlister-Davis Co., Memphis, Tenn., at \$1,746,000 for bank protection work, Mississippi River, bet. Wickliffe, Kentucky, and Cow Island Bend, Ark.

BOWLING GREEN—Warren Rural Electric Cooperative Corp. let contract to A. A. Electric Company, 4012-4018 Ogden Ave., at \$39,297 for 410 miles of distribution line.

FLEMING—Fleming-Mason Rural Electric Cooperative Corp., Flemingsburg, let contract to Leo T. Barber, Moultrie, Ga., at \$251,667 for 23.23 mi. of 69 kv transmission line, 2 substations and 1 switching station for 212 miles of line.

HOPKINSVILLE—Pennyville Rural Electric Cooperative, Box 551, let contract to Irby Construction Co., Jackson at \$462,113 for 212 miles of line.

PIKEVILLE—State Department of Health announced plans for Health Center \$102,000.

SOMERSET—South Kentucky Rural Electric Cooperative, let contract to Irby Construction Co., 417 South State St., Jackson, Miss. at \$287,530 for 180 miles of line.

WINCHESTER—East Kentucky Rural Electric Cooperative Corp., has REA approval of \$15,717,000 federation serving 84 counties; includes 40,000-kilowatt steam-generating unit and 798 miles of transmission lines.

LOUISIANA

National Production Authority granted certificates to following: Alexander Shipyard, Inc., New Orleans, \$258,483; Oil Transport Co., Inc., New Orleans, \$111,561; H. G. Koch-Mittle M. Ellis, partnership, \$52,000; Twenty Grand, Inc., Morgan City, \$70,000 and \$80,000; Hercules Petroleum Corp., Gibsland, \$289,688; Mathieson Chemical Corp., Lake Charles, \$411,000; Delta Chemical Corp., Buras, \$8,892,200.

ALEXANDRIA—Corps of Engineers, Little Rock, Ark. let contract to Southern Builders, Inc., P. O. Box 1815, Shreveport, at \$723,183 for airmen's dormitories, mess and administration building.

ALEXANDRIA—State Board of Education, Baton Rouge, let contract at \$297,000 to Tudor Construction Co. for State School for Spicic children.

BASTROP—Morehouse Parish School Board sold \$600,000 bond issue for school improvements.

BATON ROUGE—Naugetuck Chemical Division of United States Rubber Co. plans spending \$1,500,000 for expanding synthetic rubber output.

BOUMA—Terrebonne Parish Police Jury sold \$500,000 hospital bond issue.

LAKE CHARLES AIR FORCE BASE—Housing Authority received low bid of \$288,000 for defense housing.

LAKE CHARLES—Calcasieu Parish School Board sold \$1,260,000 bond issue for school improvements.

LAKE CHARLES—Columbia-Southern Chemical Corp. announced \$3,000,000 expansion program.

LOCKPORT—Lafourche Parish Board of Commissioners received low bid of \$3,636,083 from Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston, Texas, for water lines.

MINDEN—City sold \$425,000 bond issue for water, sewer, recreational and street lighting improvements.

MINDEN—Webster Parish School Board

(Continued on page 26)

Florida Highway Bids Total \$4,907,000

Florida last month received bids for projects totaling approximately \$4,907,000. Included were those in the following counties:

Polk—Federal Aid Project No. UI-007-1 (2), Job No. 1610-201, State Road No. 600, from intersection Florida Avenue and North Street, East to intersection with existing SR 600 near the south edge of Lake Parker in Lakeland; work consists of grading; stabilizing; paving; constructing small drainage structures; and incidental items; Ewell Engineering & Construction Co., Lakeland, \$586,883;

Nassau—Federal Aid Project No. F-003-7(2), Job No. 7403-202, State Road No. 15, between Duval County Line and a point approximately 10.1 miles north; work consists of grading; stabilizing; paving; constructing one concrete bridge and two concrete box culverts of bridge lengths; small drainage structures and incidental items; H. E. Wolfe Construction Co., St. Augustine, \$739,260;

Levy—Federal Aid Project No. S-7(5), Job No. 3452-251, State Road No. S-335, between point approximately 9.0 miles north of Lebanon Station and a point 1.0 mile west of SR 45; work consists of grading roadway; stabilizing; paving; constructing small drainage structures; and incidental items; W. L. Cobb Construction Co., Tampa, \$175,915;

Citrus—State Project, Job No. 0200-102, from Road No. 45 east approximately 1.17 miles to Good Counsel Camp; work consists of paving and incidental items; W. L. Cobb Construction Co., Tampa, \$25,141;

Collier—State Project, Job No. 0308-107, Road No. 29, north and south of Miles City; work consists of grading and paving; W. L. Cobb Construction Co., Tampa, \$214,054;

Hernando—State Project, Job No. 0805-107, Road No. 41, from Pasco County Line north approximately 5 miles; work consists of reworking and widening existing road and incidental items; J. D. Manly Construction Co., Leesburg, \$55,255;

Lake—State Project, Job No. 1106-108, Road No. 48, from Road No. 33 in Okahumpka to Howey-in-the-Hills; work consists of resurfacing; Marion Construction Co., Ocala, \$79,911;

Lake—State Project, Job No. 1107-108, Road No. 50, west of Clermont; work consists of constructing a 150-foot concrete deck girder bridge on precast concrete piling; Ryan Construction Co., Tampa, Fla., \$29,818;

Lake—State Project, Job No. 1153-101, Road No. S-466-A, on Piccola Island from Road No. 25 north and easterly to Lake Griffin; work consists of grading, paving and incidental items; J. D. Manly Construction Co., Leesburg, \$75,936;

Pasco—State Project, Job No. 1406-101, Road No. 578, from St. Joseph to Dade City; work consists of grading, paving, and incidental items; Polk Construction Co., Lakeland, \$208,473;

Bay—State Project, Job No. 4656-151, in Panama City on Frankford Avenue from 9th Street north to 15th Street;

(Continued on page 34)

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The World's Leading Truck Shovel

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"QUICK-WAY," the original truck shovel and always the standard, has for 30 years demonstrated its versatility and adaptability, as well as its superb engineering and long lasting construction—not only in the United States but in 65 foreign countries as well.

"QUICK-WAYS" get to and from the job faster—up to 50 miles an hour on the highway. They're quickly convertible in minutes—an attachment for every job, with four booms, shovel, scoop, trench hoe and crane. As a dragline, clamshell, pile driver, log grapple, magnet, silage or hay fork, "QUICK-WAY" is a fast moneymaker. Crane hook, concrete bucket and other special purpose tools are available.

In "QUICK-WAY" you get fine construction, all steel for strength and lightness, accurate balance. High capacity to weight ratio. Quality construction means longer life—more profits on a small investment. Economical to buy.

**You can mount basic unit on your own truck
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Model L 10 Ton Crane, 1/2 Yd. Shovel, 7 1/2 to 10 Ton Truck

Model E 7 1/2 Ton Crane, 4/10 Yd. Shovel, 5 to 7 1/2 Ton Truck

Model S 5 Ton Crane, 1/2 Yd. Shovel, 2 to 3 1/2 Ton Truck

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"QUICK-WAY" TRUCK SHOVEL DISTRIBUTORS:

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POWER EQUIPMENT COMPANY, Knoxville, Chattanooga and Kingsport, Tenn.	
HAMPTON RDS. TRACTOR & EQUIP. CO., Norfolk, Virginia	
NORTH CAROLINA EQUIPMENT CO., Raleigh, Charlotte, Asheville, Wilmington, Guilford and Greenville, North Carolina	
RAY BROOKS MACHINERY CO., Montgomery and Mobile, Alabama	
RAY BROOKS TRUCK & TRACTOR CO., Pensacola, Florida	
FREE STATE EQUIPMENT CO., INC., Baltimore, Md.	
TRACTOR & EQUIPMENT CO., INC., Birmingham and Decatur, Alabama	

Southern Construction Projects

(Typical and Important Projects Excerpted from Daily Construction Bulletin)

LOUISIANA

(Continued from page 24)

sold \$800,000 bond issue for school improvements.

NEW ORLEANS—Delta Gas Corp. has plans in progress for chemical plant near New Orleans. \$7,000,000.

NEW ORLEANS—Perrillat-Rickey Construction Co. New Orleans, submitted low bid of \$525,000 for nurses home at Mercy Hospital.

NEW ORLEANS—Orleans Parish School Board sold \$5,000,000 bond issue for school construction.

NEW ORLEANS—Orleans Parish School Board let contract at \$887,080 to R. P. Farnsworth & Co., Inc., for McDonough No. 36 Uptown Negro Elementary School.

NEW ORLEANS—The American Cyanamid Co. has acquired land on west bank of Jefferson Parish about 8 miles above Mississippi River Bridge, as site for \$47,000,000 nitrogen plant.

NEW ORLEANS—Carrollton Ave. Baptist Church congregation plans new church and educational building. \$240,000.

NEW ORLEANS—Housing Authority let contract to R. P. Farnsworth, 151 S. Salcedo St., at \$6,182,000 for housing project.

PLAQUEMINE—Mayor and Board of Aldermen received low bid of \$216,606 from Barnett Brenner, P. O. Box 654, Alexandria, for municipal water treatment plant.

PLAQUEMINE PARISH—Corps of Engineers let contract to Walter P. Villere Co., New Orleans, at \$460,399 for excavating Algiers Navigation Canal.

PLAQUEMINE PARISH—Oronite Chemical Co. plans \$1,190,000 expanding facilities for production of lubricating oil additives.

POINTE COUPEE—Corps of Engineers received low bid of \$438,000 from Lander Construction Co., Box 472, Waxahachie, Tex., for clearing Morganza Floodway.

POINTE A LA HAUCHE—Sid Richardson Gasoline Company plans \$19,000,000 ammonia plant.

ST. LANDRY PARISH—St. Landry Parish School Board plans new \$2,000,000 school projects.

SHREVEPORT—Louisiana State Fair Association let contract to Werner Co., 1320 Pierre Ave., Shreveport at \$406,000 for second phase of Youth Activity Building at State Fair grounds.

SHREVEPORT—House Appropriations Committee approved \$5,000,000 sum for construction work on Texarkana Reservoir.

SHREVEPORT—St. Mary's Episcopal Church Congregation received low bid of \$789,330 from Southern Builders, Inc., for church building.

SHREVEPORT—Ralston Purina Co. plans new mill. \$1,000,000.

SULPHUR—Calcasieu-Cameron Hospital Service District let contract to Perrillat-Rickey Construction Co., Inc., New Orleans, at \$450,000 for 50-bed Calcasieu-Cameron General Hospital.

MARYLAND

ABERDEEN—Corps of Engineers, Baltimore, to advertise for bids about July 15, for laboratory and engineering building for development and proof service, \$500,000 and \$1,000,000.

ABERDEEN—Corps of Engineers, Baltimore, to advertise for bids about June 1, for additions to fire control building, Aberdeen Proving Ground, \$500,000 and \$1,000,000.

ABERDEEN—Corps of Engineers, Baltimore, let contract to Five Boro Construction Corp., 2 Lafayette St., New York, N. Y., at \$1,692,000 for interior ballistic laboratory.

ABERDEEN—Corps of Engineers, Baltimore, received low bid from Baltimore Contractors, Inc., 711 S. Central Ave., Baltimore at \$1,109,450 on Item 1 and from Wayne Martin Co., Flushing, N. Y., at \$299,500 on Item II, for 6 school shop buildings.

ANDREWS FIELD—Corps of Engineers, received low bid from Grinnell Construction Co., Washington, D. C., at \$365,000 for maintenance hangars.

BALTIMORE—State has NPA approval for alterations to Penitentiary. \$315,000.

BALTIMORE—City has NPA approval for court building. \$1,692,635 and mammal house Drury Hill Park. \$200,000.

BALTIMORE—City Planning Commission recommended a \$19,800,000 capital improvement program for the next several years;

projects costing \$65,000,000 and listed as urgent include Cross Country Boulevard Elementary School, \$1,070,000; Brooklyn Hills High School, \$1,700,000; Callaway Avenue Elementary School, \$565,000; Northwest Baltimore Colored Elementary, \$1,900,000; Northwest Baltimore Colored Junior high, \$3,000,000; additions to existing sites, \$5,500,000; relief for School 211 (Gardenville Elementary-Belair and Frankford), \$1,120,000; Southeast Baltimore secondary school, \$4,300,000; replacement for School 115 (Merryman's Lane near York Road), \$560,000; new school to replace Armistead School, Light and Clement Sts. and Ferry Elementary school.

BALTIMORE—Franklin Square Hospital announced plans for financial campaign to raise \$1,200,000 for modernization and replacement.

BALTIMORE—House of Representatives considering appropriation of \$1,200,000 for Baltimore harbor and ship channels.

BALTIMORE—Housing Authority let contracting to Henry A. Knott, Inc., at \$3,156,600 for housing project, Clarendon.

BALTIMORE—Board of Estimates let contract for following project: Pratt St. Pier, replacing fenders and making repairs; Martin G. Imbach, Inc., \$111,083.

BALTIMORE—Board of Estimates received low bid of \$2,034,942 from Philip Vizi & Son, Inc., 594 Stamford Rd., for Cherry Hill Junior High School.

BALTIMORE—Board of Estimates let contract at \$579,390 to MacLeod Construction Co., for Mt. Winans Colored Elementary School.

BALTIMORE—Board of Estimates let contract to Wildberger-Best Construction Co., 2240 Friendship St., at \$379,000 for fire engine house and civil defense control center, Cold Spring Lane.

BALTIMORE COUNTY—County Commissioners received low bid of \$254,970 from W. E. Bickerton Construction Co., Inc., 101 W. 22nd St., Baltimore, for Soller Point Junior-Senior High School.

BETHESDA—Daniel P. Shaw, has N.P.A. approval for hotel, \$234,600.

CAMBRIDGE—Dorchester County Board of Education let contract at \$749,163 to Charles E. Brohawn & Brothers, for high school.

CATONSVILLE—Baltimore County Board of Education, Towson, received low bid of \$251,080 from Joseph F. Hughes & Co., Baltimore, for Catonsville High School, Rolling Rd.

CHARLESTON—Navy Department received low bid from Rogers & McGrath, Washington, D. C., at \$289,000, Item I, for alterations and additions to mess hall and galley Bldg. Naval Radio Station.

CHEVERLY—Cheverly Community Church Congregation has N.P.A. approval for church and educational building. \$151,000.

CUMBERLAND—Potomac Electric Co. plans expenditure of additional \$62,000,000 through 1954 to expand facilities.

DUNDALK—Industrial Development Co. plans pump house and factory, Sainsbury Road. \$150,000.

ELLICOTT CITY—Department of Public Improvements received low bid from W. H. Ward Contractors, 5112 York Road, Baltimore, at \$192,345 for headhouse addition to vehicle building.

LANHAM—Lanham Methodist Church has N.P.A. approval for church building, \$300,000.

LAPLATA—Archbishop of Washington let contract at \$316,171 to Moller Construction Co., Washington, for Archbishop Neale School.

LAUREL—District Commissioners, received low bid from Gannett Construction Co., Washington, D. C., at \$1,744,000 for construction Industrial Home School.

PATUXENT RIVER—Navy Department received low bid from Atlantic States Construction Corp., Arlington, Va., at \$139,995 for new construction and facilities, Patuxent Air Station.

SKENESVILLE—Department of Public Improvements, 506 Park Ave., Baltimore, let contract to Coswell Construction Co., 513 Park Ave., Baltimore at \$1,362,400 for medical and surgical building, Springfield State Hospital.

TOWSON—Baltimore County Board of Education received low bid of \$227,700 from John K. Ruff, Inc., for high school addition.

WHEATON—Maryland Real Estate Company has N.P.A. approval for stores. \$151,500.

MISSISSIPPI

National Production Authority allotted materials for industrial construction during second quarter of 1952 to following firms: Flinkote Co., Meridian, \$152,876; Spencer Chemical Co., Vicksburg, \$13,958,000; Southern Naval Stores, Columbia, \$1,566,000; National Chemical Corp., Yazoo City, \$7,122,466; Hercules Powder Co., Hattiesburg, \$701,543; Thikol Corp., Moss Point, \$1,000,000; Rockwell Manufacturing Co., Tupelo, \$1,315,491; International Natco, Natchez, \$22,233,968; City of Greenville, \$8,000,000; Cone Finishing Co., Greenville, \$400,000; Board of Supervisors of Monroe County, Monroe County, \$800,000; Great Southern Box Co., Lucedale; City of Meridian, \$3,200,000.

BILLOI—Keesler Air Force Officers Club has drawings in progress for remodeling and rehabilitation of officers' mess facilities, \$200,000.

BILLOI—Corps of Engineers, let contract to Barnett Brenner, Alexandria, at \$376,844 for Keesler sewage pumping station and expansion of sewage treatment plant.

BILLOI—Corps of Engineers let contract to Southeastern Electric Construction Co., Andalus, at \$125,000 for power lines and revisions to electrical distribution system, Keesler.

BROOKHAVEN—City selected John Turner Jackson, as architect for plant to be leased to Johnston Manufacturing Co., \$600,000 bond issue voted.

COAHOMA COUNTY—Corps of Engineers let contract to Joe W. Hendrix, Shreveport, Miss., at \$248,000 for approx. 870,000 cu. yds. of earthwork in Upper Yazoo Levee District.

GRENADA—City sold \$155,000 bond issue for storm sewer.

GRENADA—City sold \$295,000 bond issue for water and sewer work.

GULFPORT—City sold \$2,500,000 bond issue for water and sewer improvements.

GULFPORT—City approved \$600,000 bond issue for sewerage system.

HATTIESBURG—Warren Petroleum Corp., has D.P.A. authority for storage reservoirs for petroleum gas.

JACKSON—City Council let contract at \$114,676 to M. V. Arledge, for water mains.

JACKSON—City let contract at \$154,538 to W. S. Construction Co., for sanitary sewers.

MOORE—City plans for factory building to be leased to Croft Steel Products, Inc., \$250,000.

PASCAGOULA—M. T. Reed Construction Co., Belzoni, Maurice Reed, has filed application with Defense Production Administration, for permit to construct multi-million dollar aluminum phosphate plant.

PASCAGOULA—Board of Trustees of Pascagoula Municipal Separate School District let contract at \$327,100 to J. C. McClelland, Jr., Gulfport, for school.

RALEIGH—Mayor let contract to M. V. Arledge, Jackson, Miss., at \$240,862 for natural gas transmission line.

VICKSBURG—Corps of Engineers let contract to Inford Construction Co., P. O. Box 2027, Meridian, at \$1,143,608 for concrete and steel sheet piling floodwall along Yazoo Canal.

VICKSBURG—Corps of Engineers received low bid of \$694,100 from Forcum-James Co., North Station, Memphis, for upper bank paving at several localities on banks of Miss. River.

VICKSBURG—Spencer Chemicals Co. let contract to Air Products, Inc., for design, manufacture and installation of key equipment in its new \$15,000,000 ammonia plant now under construction.

WEST POINT—City approved \$1,200,000 bond issue for water and sewer system.

WEST POINT—Memorial Hospital Foundation let contract to Builders Service Co., West Point at \$544,480 for Hospital.

MISSOURI

BUTLER—Osage Valley Electric Cooperative Assoc. let contract to L. O. Brayton and Co., Dyersburg, at \$206,235 for 34.6 miles of line.

COLUMBIA—Presbyterian Student Association has N.P.A. approval for center, \$190,000.

GENEVIEVE—Citizens Electric Corp., St. Genevieve, let contract to Lindsey Construction Co., Nashville, Tenn., at \$137,292 for 43 miles of line.

IRONTON—Black River Electric Cooperative let contract to Reinhart and Donovan Co., Oklahoma City, Okla., for 180.06 miles of line, at \$319,589 and for 191.82 miles of line in amount of \$348,717.

KANSAS CITY—L. P. Cookingham, City Mer. submitted a city council proposed public improvement program for 1952 calling for a \$3,375,000 bond issue; includes \$1,900,000 for acquisition of a site for a new super airport and the construction of mini-

(Continued on page 28)

GM Diesel

Case History No. 519-18

USER: Becker & Tuckwood,

Lancaster, Wisconsin

INSTALLATION: GM 4-71 Diesel powering

Universal Model 1836 portable
jaw crusher, replaced gasoline engine
six years ago.

PERFORMANCE: Crusher produces 600
cu. yds. daily. Operates 6 days a
week. Owners report 10% to 15% higher
production with GM Diesel, and 40%
lower fuel costs. Engine overhauled
once in six years.



THIS DIESEL CRUSHES 600 YARDS A DAY and cuts fuel costs 40%

The engine in this crusher started Becker and Tuckwood off with General Motors Diesel power in 1946. Now they have eight GM Diesels powering crushers, tractors, shovels and pulverizers. These 2-cycle engines pack more power in less space—provide the rugged, dependable, economical power needed for all kinds of applications from 32 H.P. up. Then too, maximum

interchangeability of working parts cuts downtime—helps keep maintenance costs at a minimum. Why not ask your GM Diesel distributor for all the facts?

DETROIT DIESEL ENGINE DIVISION
GENERAL MOTORS • DETROIT 26, MICHIGAN
CRUSHER ENGINES... 32 to 275 H.P., MULTIPLE SPEEDS... Up to 800 H.P.

It pays to Standardize on

Write for booklet "A 50,000 Hour Handbook
on Diesel Engines" that tells you why.



Southern Construction Projects

(Typical and Important Projects Excerpted from Daily Construction Bulletin)

MISSOURI

(Continued from page 26)

mum facilities, \$650,000 for acquisition of the balance of land needed for the Municipal Auditorium parking garage and plaza; \$250,000 for completion of the purchase of the riverfront site for proposed municipal stadium; \$65,000 for completion of fire protection improvements at General Hospitals; \$105,000 for completion of Gardner Ave. sewer in Northeast Industrial District; \$125,000 for construction of African veldt at Swipe Park Zoo; and \$250,000 for reconditioning and resurfacing streets and traffic ways.

MIAMI—North Central Missouri Electric Cooperative let contract to Hawk Construction Co., Des Moines, Iowa for 140 miles of line \$220,714.

ST. LOUIS—Corps of Engineers, Kansas City District, Col. L. J. Lincoln, Dist. Engr., Kansas City, let contract to McCarthy Brothers Construction Co., 4903 Delmar Blvd., at \$2,169,485 for Adjutant General Publication Center, St. Louis County.

ST. LOUIS—Housing Authority let contract to L. E. Millstone Const. Co., 4343 Clayton Ave., at \$12,699,130 on general work for Capt. Wendell Oliver Pruitt Homes.

ST. LOUIS—Archdiocese of St. Louis, has plans in progress for Cardinal Glennon Memorial Hospital, \$3,500,000.

NORTH CAROLINA

North State Telephone Co. plans expenditures of \$750,000 for expansion during 1952.

ASHEBORO—City approved \$975,000 bond issue for school improvements.

ASHEVILLE—St. Joseph Hospital let contract to Southeastern Construction Co., 301 W. 2nd St., Charlotte, for convent and addition to hospital, \$250,000.

BEAUFORT COUNTY—Local Government Commission sold \$500,000 bond issue for school improvements.

CAMP LEAFNE & CHERRY POINT—Public Housing Authority received low bid of \$223,000 from R. N. Rouse & Co., Goldsboro N. C. for trailer projects.

CHARLOTTE—U. S. Property & Disbursing Officer let contract to J. C. Critcher Co., Asheville at approximately \$811,748 for widening northeast-southwest runway, Municipal Airport.

CORNELIUS—Cornelius Electric Membership Corp. let contract to Camen Construction Co., Sanford, at \$199,566 for 24.8 miles of line.

DURHAM—Watts Street Baptist Church plans \$20,000 building.

GASTONIA—City let contracts to the following for water works improvements; Contract 3—cast iron pipe, Lynchburg Pipe & Foundry Co., \$55,769; Contract 4—valves, Darline Valve Mfg. Co., Williamsport, Pa., \$29,352; Contract 5—chem. feed machines, Purser & London, Independence, Mo., Charlotte, \$22,635; Contract 6—chlor. equipment, Wallace & Tiernan Co., Inc., Belleville, N. J.; Contract 7—P&H recorders, Foxboro Mfg. Co., Contract 8—venturi tubes and meters, Simplicity Valve Co.; Contract 10—emer. gen. equipment, North Carolina Equipment Co.; Contract 11—lab. furn. and equipment, Charlotte Chemical Laboratory, Charlotte; Contract 12—general contract, Boyd & Goforth, Pineville Road, Charlotte, \$471,473; Contract 13—elevator, Southern Elevator Co., Charlotte; Contract 14—electric power and light wiring, Reidsville Engineering Co., Inc., Reidsville, \$15,530; Contract 15—seating, Hickory Plumbing & Heating Co., Hickory, \$17,900 and Contract 16, raw water force mains with concrete pipe, Blythe Brothers Co., 2911 Hutchinson, Charlotte, \$72,298.

GOLDSBORO—Local Government Commission sold \$980,000 bond issue for water improvements.

GREENSBORO—Greensboro Manufacturing Co. let contract to H. L. Coble Construction Co., for factory, \$750,000 to \$1,000,000.

HENDERSON—Henderson City Schools let contract at combination bids of \$230,073 to William C. Vick, Raleigh, for new buildings and renovation.

HIGH POINT—North State Telephone Co. let contract at \$142,222 to R. K. Stewart & Son, 1519 S. Main, for alterations and additions.

KERNERSVILLE—City let contract at \$154,481 to Gilbert Engineering Co., Statesville, for new water supply project.

KINSTON—Board of Trustees of Lenoir County Hospital received low bid from J. L. Coe Construction Co., 508 Builders Bldg., Charlotte at \$697,290 for 36-bed addition and alterations to an existing 69-bed hospital.

LAURINBURG—Laurinburg Presbyterian Church Congregation let contract to Interstate Const. Co., Charlotte, N. C., at \$115,385 for educational building.

MCDOWELL COUNTY—County Board of Education, Marion, received low bids for following schools: New School at \$85,800, W. R. Patton Co., Morganton; Glenwood School, W. R. Patton Co., Morganton, at \$103,000; Pleasant Gardens School, C. P.

Neal Construction Co., Forest City, at \$81,000; North Cove School, A. A. Ramsey & Son, Shelby, \$119,700 and Old Fort School at \$137,200, C. F. Neal Construction Co., Forest City.

MOUNT HOLLY—City received low bids for waterworks improvements, Mid-State Contractors, Hickory, at combination bid of \$17,274 on sections I & II and Gilbert Engineering Co., Statesville, on Section III at \$121,999.

ROCKY MOUNT—City sold \$1,250,000 bond issue for school construction.

SALISBURY—City let contract at \$380,272 to Blythe Brothers, Charlotte, for raw water mains.

SANFORD—Local Government, Commission sold \$200,000 Lee County Hospital addition bonds.

SURRY COUNTY—Local Government Commission sold \$375,000 bond issue for school building and county office building.

WINSTON-SALEM—First Baptist Church let contract to Kessler Construction Co., Winston-Salem, at \$10,964 for educational building.

WINSTON-SALEM—Housing Authority let contract to H. L. Coble Construction Co., Greensboro, at \$1,596,000 for housing project.

YADKIN COUNTY—Board of Education received low bid of \$132,552 from East Carolina Construction Co., Dunn, for colored school.

OKLAHOMA

COLLINSVILLE—Verdigris Valley Electric Cooperative let contract to Real Electric Corp., Owensboro, Ky., at \$48,968 for 219 miles of line.

FORT SILL—Corps of Engineers let contract to Chapman Construction Co., Lawton, Okla., at \$187,900 for conversion of building No. 1720.

HUGO—Choctaw Electric Cooperative let contract to Tri-State Construction Co., Dallas, at \$189,123 for 215 miles of line.

LAWTON—A Committee of the Magic Circle Industrial Association studying a proposal for \$200,000 bond issue for building on the Commerce site.

MCALISTER—Navy Department, New Orleans, La., let contract to H. B. Nicholson, James L. Ferry & N. P. Van Valkenburg, Pasadena, Calif., at \$2,374,000 for additional storage facilities, Ammunition Depot.

OKLAHOMA CITY—Corps of Engineers, Tulsa, received low bid from Pennington-Winter Co., Oklahoma City, at \$100,025 for railroad facilities.

OKLAHOMA CITY—Oklahoma Gas and Electric Co. plans south Generating Station; second gas turbine installed at Belle Isle Generating Station; expenditures for 1952 approx. \$15,500,000.

STILLWATER—Central Rural Electric Cooperative let contract to Irvin Construction Co., Jackson, Miss., at \$567,579 for 329 miles of line.

TULSA—City may vote in May on following bond issues: \$300,000 for fire department; \$175,000 for police department; \$200,000 for library; \$750,000 for parks and \$500,000 for sites for public buildings.

TULSA—City will receive bids on or about July 1 on \$4,550,000 bond issue for water and sanitary sewer construction program.

TULSA—Ajax Die Casting and Manufacturing Co. let contract to Tri-State Constructors, Inc. for \$100,000 building on south side of Sand Springs Road.

SOUTH CAROLINA

National Production Authority allotted materials for industrial construction during second quarter of 1952 to following firms: Stevens-Curran Corp., Columbia, \$1,000,000; Greenwood Mills, Greenwood, \$6,821,529; Gayley Mill Corp., Marietta, \$3,579,179; Celanese Corporation of America, Rock Hill, \$76,000; Reeves to Irvin Construction, \$2,348,750; Textron Southern, Inc., Williamsburg, \$6,597,800; Rock Hill Printing & Publishing Co., Rock Hill, \$335,287; Delaware Falls Co., Kingstree, \$1,089,132; Westinghouse Electric Co., Hampton, \$5,389,000; Draper Corp., Spartanburg, \$1,725,783; Draper Corp., East Spartanburg, \$725,000; Pickens Hardwood Flooring Co., Pickens, \$77,000.

Defense Production Administration issued certificates of necessity for industrial expansion to following: South Carolina Electric & Gas Co., Columbia, electric power, \$5,967,064; and \$1,253,940; South Carolina Electric & Gas Co., Charleston, electric power, \$260,000; South Carolina Electric & Gas Co., Columbia, \$165,100.

CHARLESTON—Corps of Engineers let contract to American Bridge Div. U. S. Steel, Atlanta, Ga., at \$639,585 for fabrication and erection of structural steel frame for hangar.

CHARLESTON COUNTY—St. John's

Kentucky Low Bids Total \$1,846,557 for Highways

Low bids for the projects covered by the April 25 opening of the Kentucky Department of Highways totaled 1,846,557. By counties, the projects included:

Boyle County—S 55 (2); SP 11-180, Danville-Brumfield rd., 494 of a mile, culvert and traffic bound limestone approaches, Lovell & Hart Construction Co., Lexington, Ky., \$26,016; Letcher County—F 140 (9); SP 67-159, Whitesburg-Cumberland rd., 359 of a mile bituminous penetration surface and seal, H. C. Adams, Lexington, Ky., \$36,711;

Muhlenberg County—S 273 (1); RS 89-363, Greenville-Earles rd., 6.831 miles grade, drain and traffic bound limestone, Sam Nally Co., Bardstown, Ky., \$68,175; Todd County—SP Group 8 (1952) 13,750 miles bituminous surface class I, State Contracting & Stone Co., Inc., Hartford, Ky., \$65,356;

Logan County—SP Group 9 (1952), 13,359 miles bituminous surface class I, State Contracting & Stone Co., Inc., Hartford, Ky., \$71,139;

Allen County—SP Group 10 (1952),

10,101 miles bituminous surface class I,

L. P. Cavett Co., Lockland, Ohio, \$86,169;

Henry County—SP Group 11 (1952),

11,602 miles bituminous surface class I, Highland Co., Inc., Louisville, Ky., \$65,824;

Pendleton-Grant Counties—SP Group 13 (1952), 17,623 miles bituminous surface class I, L. P. Cavett Co., Lockland, Ohio,

\$128,999;

Caldwell-Hopkins Counties—SP Group 18 (1952), 6,100 miles bituminous surface class I, Corum & Edwards, Inc., Madisonville, Ky., \$64,943;

McLean County—SP Group 19 (1952), 4,120 miles bituminous surface class I (using uncrushed river gravel and sand),

H. K. Williams, Louisville, Ky., \$24,990;

Webster County—SP Group 20 (1952), 18,940 miles bituminous surface class C-1,

Ellis, Kelly & Co., Owensboro, Ky., \$111,724;

Warren County—SP Group 21 (1952), 5,672 miles bituminous surface class C-1,

Ellis, Kelly & Co., Owensboro, Ky., \$30,663;

(Continued on page 32)

(Continued on page 30)

Some of the Jobs **HUBER** MAINTAINERS Are Doing



NATIONAL GOVERNMENTS

Grading and maintenance work on highways and secondary roads in national parks, reservations, national public lands.

STATES

Highway grading and maintenance service of many kinds including berm grading, mowing, ditch cleaning, etc.

COUNTIES

Highway and secondary road grading and maintenance work. Counties owning attachments keep HUBERS busy every month of the year.

MUNICIPALITIES

Street and alley grading and maintenance; every type of maintainer attachment is in municipal service.

TOWNSHIPS

Townships charged with road maintenance are among favorite users of Huber Maintainers for grader and maintenance work.

PUBLIC GROUNDS

Parks, playgrounds, conservation areas, publicly-owned beach areas need and use HUBERS for grader and maintenance service.

OIL FIELDS

HUBERS are at work in the oil fields, grading and maintaining off-the-highway roads and building dams around oil wells and storage tanks.

CEMETERIES

Cemeteries keep HUBERS busy every month, grading and maintaining drives, mowing, developing new grounds, removing snow, patching pavements, etc.

AIRPORTS

HUBERS are tailor-made for airport service, grading unpaved areas, patching paved areas, mowing, removing snow, towing planes, etc.

LOGGING

Grading and maintaining logging camp roads, mowing, bulldozer service.

INDUSTRIES

Many industrial users include factories with sizeable grounds and miles of roadways; lift loader widely used for cleanup work around factory sites.

MINES

Grading and maintenance of roadways; broom widely used around strip mines to sweep coal veins before removal.

ESTATES & RANCHES

Grading and maintenance of roadways; lift loader for cleanup; mower widely used.

RACE TRACKS

Grading and maintenance of track and of surrounding roadways and grounds.

CONTRACTORS

Contractors, large and small, in all kinds of contract work, are enthusiastic HUBER users. They like versatility of HUBERS, ability to move rapidly from one job to another.

THE HUBER MANUFACTURING COMPANY — Marion, Ohio

Represented By:

LEARY & OWENS MACHINERY CO., INC.

Montgomery, Ala.

TRI-STATE EQUIPMENT CO.

Memphis 2, Tenn.

CLARK EQUIPMENT CO.

Little Rock, Ark.

MUNICIPAL SALES CO.

Richmond, Va.

FLORIDA EQUIPMENT CO. OF JACKSONVILLE

Jacksonville 3, Fla.—ROLLERS & MAINTAINERS ONLY

FLORIDA EQUIPMENT CO. OF TAMPA

Tampa, Fla.—ROLLERS & MAINTAINERS ONLY

FLORIDA EQUIPMENT CO. OF MIAMI

Miami, Fla.—ROLLERS & MAINTAINERS ONLY

M. R. HAMILL, INC.

Charleston, W. Va.—MAINTAINERS & GRADERS ONLY

CHESAPEAKE SUPPLY & EQUIP. CORP.

Hyatstville, Maryland

W. VIRGINIA TRACTOR & EQUIPMENT CO.

Charleston 22, Clarksburg, W. Va.—ROLLERS ONLY

INTERSTATE EQUIPMENT CO.

Stateville, N. C.

WILSON MACHINERY & SUPPLY CO.

Lexington 15, Ky.

GILL EQUIPMENT COMPANY

Atlanta, Georgia

E. C. RAY MACHINERY CO.

Shreveport, Louisiana

PERSHING EQUIPMENT CO., INC.

Evansville, Ind.

CHESAPEAKE SUPPLY & EQUIP. CORP.

Baltimore 18, Maryland

LOUISIANA INDUSTRIAL EQUIP. CO.

Baton Rouge, La.

ROSS MACHINE COMPANY

Cave City, Ky.—MAINTAINERS & GRADERS ONLY

ARMSTRONG EQUIPMENT CO., INC.

Birmingham, Ala.

GOOD ROADS SUPPLY CO., INC.

Atlanta, Ga.

BROOME EQUIPMENT CO.

Augusta, Georgia

DEMPTSTER BROTHERS, INC.

Machinery Division

Nashville, Knoxville, Tenn.

SOUTH CAROLINA EQUIPMENT CO.

Columbia, S. C.

CONSTRUCTION EQUIPMENT COMPANY

Mobile, Alabama

WATKINS-ALDRIDGE EQUIPMENT CO.

Jackson, Mississippi

Southern Construction Projects

(Typical and Important Projects Excerpted from Daily Construction Bulletin)

SOUTH CAROLINA

(Continued from page 28)

School District No. 9, let contract at \$165,251 to C. W. B. Richard, Charleston, for additions to Haut Gap School.

CHARLESTON HARBOR — Corps of Engineers received low bid of \$314,313 from Arundel Corp., Baltimore, Md., for maintenance dredging.

FORT JACKSON — Corps of Engineers, Charleston, let contract to Cecil S. Inc., Spartanburg, at \$292,723 for classrooms and latrines.

FORT JACKSON — Corps of Engineers received low bid from W. A. Foster Construction Co., Burlington, N. C., at \$299,492 for alterations to bachelor quarters.

KINGSTREE — Princeton Worsted Mills started work on foundations for \$300,000 plant for weaving cloth from dacron.

LANCASTER — Lancaster Telephone Co. received low bid of \$112,050 from G. Shookley Construction Co., Columbia, for dial and toll office building.

MANNING — School District No. 2, let contract at \$256,000 to Harlie-Quattlebaum Construction Co., Florence, for Manning Training School.

NEWBERRY — Clinton-Newberry Gas Authority let contract to Birmingham Building Co., Birmingham, at \$2,281,834 for natural gas distribution system and transmission main.

NORTH CHARLESTON — Corps of Engineers, Charleston, received low bid from Port Construction Co., Wilmington, N. C., at \$135,981 for repairs to roads and railroad siding.

NUMTER — Corps of Engineers let contract to Boyle Construction Co., 30 E. Liberty St., Sumter at \$112,229 for utilities, water and sewer lines and sewage disposal, Shaw Base.

NUMTER — Corps of Engineers let contract to American Bridge Div., U. S. Steel, Atlanta, Ga., at \$594,594 for structural steel frame for hangar, Shaw Base.

NUMTER — Corps of Engineers received low bid from Kaminer-Helgeson Co., Greenville at \$237,750 for P. O. L. system, Shaw Base.

NUMTER — School District No. 17 let contract at \$484,800 to Barger Construction Co., Mooreville, for alterations and additions to Lincoln High School.

TENNESSEE

National Production Authority allotted materials for industrial construction during second quarter of 1962 to following firms: American Finishing Co., Memphis, \$331,197; American Enka Corp., Lowland, \$10,769,500; Borden Mills, Inc., Kingsport, \$618,490; Aluminum Company of America, Alcoa, \$68,000; Aluminum Company of America, Alcoa, \$144,000; Aluminum Company of America, Alcoa, \$300,000; General Portland Cement Co., North Chattanooga, \$160,000; E. I. duPont de Nemours Co., Woodstock, \$65,000; E. I. duPont de Nemours Co., Columbia, \$1,900,000; Arvey Corp., Memphis, \$1,687,315; Quaker Oats Co., Memphis, \$1,880,000; E. I. duPont de Nemours Co., Columbia, \$1,900,000; Tennessee Eastman Co., Kingsport, \$355,000; Tennessee Eastman Co., Kingsport, \$150,000; Davison Chemical Corp., Nashville, \$90,000; Rohm & Haas Co., Knoxville, \$544,000; Tennessee Eastman Co., Kingsport, \$6,196,500; Tennessee Products & Chemical Corp., Chattanooga, \$363,000; American Lava Corp., Chattanooga, \$712,140; Robertshaw-Fulton Controls Co., Knoxville, \$484,460; Montana Ferroalloys, Inc., Memphis, \$1,192,000; Tennessee Products & Chemical Corp., Chattanooga, \$630,000; Ferro Corp., Nashville, \$400,000; Union Carbide & Carbon Corp., Columbia, \$16,528,000; Mead Corp., Kingsport, \$1,258,000; Kimberly-Clark Corp., Memphis, \$630,000; Firestone Tire & Rubber Co., Memphis, \$612,700; Akorn Realty Co., Nashville, \$125,500.

Defense Production Administration issued certificates of necessity for industrial expansion to following: Ingram Products Co., Nashville, \$480,000 and \$240,000; Nashville Compressed Steel Co., Nashville, \$132,781; Robertshaw-Fulton Controls Co., Knoxville, \$104,615; Borg-Warner Corp., Memphis, \$201,880; Keystone Freight Lines, Memphis; Firestone Tire & Rubber Co., Memphis, \$1,144,380 and \$494,400.

East Tennessee Natural Gas Company plans \$5,800,000 pipe line project to carry gas to cities in a Tennessee area east of Knoxville and Chattanooga.

CHATTANOOGA — Central Presbyterian

Church Congregation let contract to Mark K. Wilson Co., at \$143,507 for Sunday school addition.

CHATTANOOGA — Board of Education let contract at \$1,992,882 to John Martin Co., Inc., 610 West Manning St., for Howard School.

KNOXVILLE — Electro-Manganese Corp. has Government authorization for \$2,250,000 plant.

NASHVILLE — City received low bid of \$180,000 from Oman Construction Co., Nashville, for filtration plant.

MEMPHIS — Corps of Engineers let contract to Sam Finley, Inc., Atlanta, at \$670,000 for bank protection work, Miss. River.

MEMPHIS — Navy Department, Charleston, S. C. received low bid from Consolidated Contractors, 1489 Thomas, at \$143,444 for underground electrical telephone and fire alarm system.

MEMPHIS — Cossitt Library in process of acquiring property for new central library, \$500,000.

MURFREESBORO — Housing Authority plans slum clearance and urban redevelopment program, \$2,000,000.

NASHVILLE — Sinclair Refining Co. has D.P.A. authority for petroleum products storage, \$165,000.

NASHVILLE — L. & N. Railway let contract to Oman Construction Co., Nashville, at \$2,500,000 for relocation of railroad yards.

NASHVILLE — City plans spending \$4.5 million for redevelopment.

OAK RIDGE — U. S. Atomic Energy Commission let contract to V. L. Nicholson Co., Knoxville, at \$278,227 for central shops building.

TEXAS

Pacific Northwest Pipeline Corporation plans 26-inch pipeline to Pacific Northwest, originating in northwest Texas, \$130,000,000.

United States Pipeline Co., application for \$69,000,000 petroleum products line from Beaumont, Tex., to Newark, N. J., via Cincinnati.

World Oil Co., plans 941 miles of new pipe lines at cost of \$74,000,000 to Gulf Coast Region.

AUSTIN — City sold \$3,000,000 bond issue for school construction; \$1,575,000 for water works improvements, \$860,000 for sanitary sewers.

AUSTIN — Corps of Engineers received low bid from Lawless & Alford, Inc., P. O. Box 460, Austin at \$2,222,000 for airman's dormitories, Bergstrom Base.

BEAUMONT — District Engineers, Galveston, plans channel project, including improvements on Sabine Pass, \$5,740,000.

BIG SPRING — Cudsen Petroleum Corp. plans office, \$800,000.

BORGER — Housing Authority let contract to F. M. Lambert & Son, P. O. Box 425, Abilene, at \$1,158,942 for housing project.

BRENNHAM — Sisters of St. Francis (Sylvana, Ohio) plans hospital, \$600,000.

CORPUS CHRISTI — Navy Department received low bid from Brown & Root, Houston, at \$2,642,546 for runway, taxiways, Air Station.

CORPUS CHRISTI — Navy Department received low bid from H. B. Zachry, W. Harding Blvd., San Antonio, at \$1,420,029 for sprinkler system, Air Station.

DALLAS — Dallas Independent School District, plans two elementary and two junior high schools, \$3,000,000.

DALLAS — Dallas County and City of Dallas received low bid from J. W. Bateson Construction Co., Inc., Irwin-Keasler Bldg., Dallas at \$9,122,000 combination bid, including mechanical, electrical work, etc., for City-County Hospital & Clinic Building.

DALLAS — West Dallas Housing Authority received low bid of \$2,988,000 from J. J. Frith, Dallas, for housing project, Tex. 9-11-A.

DALLAS — Housing Authority received low bid of \$3,056,948 from Hubbard-Hubbell & Nix Const. Co., 1507 Delano St., for housing project, Tex. 9-11-C.

DALLAS — Housing Authority received low bid of \$3,854,472 from Hubbard-Hubbell & Nix, 1507 Delano St., for housing project, Tex. 9-11-D.

FORT WORTH — Harris Hospital, W. P. Earnsey, Jr., Administrator, announced plans for expansion, \$1,450,000.

FORT WORTH — Wholesale Merchandise Co. plans warehouse, \$2,400,000.

(Continued on page 32)

Thirteen West Virginia Jobs Bid at \$1,289,788

Proposals totaling \$1,289,788 were received for thirteen highway projects by the State Road Commission of West Virginia. Listed by counties, the projects included:

Berkeley County—State Projects 6193 and 7077, 6.6 miles of surface treatment on Garradstown-Union Corners-Virginia Line Road (Sec. 31/1 and 51/2), Potomac Construction Co., Martinsburg, low bidder, \$26,771; Adams & Tate Construction Co., \$28,821;

Boone County—Federal Air Secondary Project S-561 (1), 8.167 miles of grading, draining, traffic bound base (Type B) revised, and bridges, Barrett-Kopperston Road (Sec. 11), T. C. Staples Construction Co., South Charleston, low bidder, \$28,717; Keeley Construction Co., \$274,042; Harry Hatfield & Co., \$281,793; C. E. Wetherall & Co., \$284,352; W. A. Wilson & Sons, \$299,221; Brown & Wright, \$341,016; L. S. Coleman Co., \$400,481;

Boone County—Federal Aid Secondary Project S-561 (1), Pond Fork bridge S-1868, three continuous steel I-beam spans, 35, 45 and 35 feet, on concrete substructure; J. M. Francesca & Co., Fayetteville, low bidder at \$43,847; Wallace Construction Co., \$47,230; Keeley Construction Co., \$47,714; Boso & Ritchie, \$47,785; Thomas Company, \$48,561; Monty Brothers, \$49,221; Harry Hatfield & Co., \$50,999;

Doddridge County—State Project 2197, 6.1 miles surface treatment, West Union-Tyler County Line Road (W. Va. 18), Standard Asphalt & Tar Co., Charleston, low bidder, \$24,731; Osborne Construction Co., \$25,928; F. F. Earp, \$27,268; Walter C. Stonestreet, \$29,382; A. A. and D. M. Bostic, \$28,468;

Doddridge County—Federal Aid Secondary Project S-619 (1), 2.516 miles of grading, draining and traffic bound base course (Type B) revised, Lewis County Line-Coldwater (Indian Fork Road), (Sec. 58), F. F. Earp, Fairmont, low bidder, \$109,815; J. F. Allen Co., \$120,314; Harry Hatfield & Co., \$121,034; Paul Price, \$124,754; C. E. Wetherall Co., \$129,953; Stickley Brothers, Inc., \$135,892; W. A. Wilson & Sons, \$150,393;

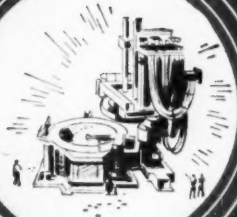
Hancock County—State Project 5122 (265 W. P. S. O.), 5.2 miles surface treatment, New Cumberland-Pennsylvania Line (Hardin Run) Road, (Sec. 7), Tri-State Asphalt Corp., Wheeling, \$22,451;

Harrison County—State Project 5365, 6.6 miles surface treatment, Shinnston-Mannington Road (Sec. 3), to be let in conjunction with Project 5737 in Marion County, Feather Construction Corp., Morgantown, low bidder, \$30,413; F. F. Earp, \$30,699; Allen Construction Co., \$31,045;

Lewis County—Federal Aid Secondary Project S-534 (1), 6.022 miles of Secondary Route 44, Braxton County Line Road, (Sec. 23), grading, draining and traffic bound base course (Type B) revised, Harry Hatfield & Co., Barboursville, low bidder, \$206,104; Stickley Brothers, Inc., \$206,603; J. F. Allen Co., \$213,503; W. A. Wilson & Sons, \$245,171;

(Continued on page 32)

More DIXISTEEL for Dixie



Southeast's Largest Electric Furnace To Increase Our Steel Output by 50%

DIXIE'S LARGEST ELECTRIC FURNACE

- Uses as much electricity a day as a city of 10,000 population.
- Makes a heat of steel in about 4 hours, compared to 8 hours or more for an open hearth furnace.
- Can be fully charged in less than 30 minutes, or 7 times as rapidly as an open hearth furnace of the same capacity.
- Requires no pig iron for producing low-carbon steel—uses scrap alone without impairing quality.
- Is equipped to produce high-carbon, special strength alloy steels, including stainless.

TO MEET the growing demands of national defense and civilian needs for more steel, we are proud to announce the addition of the Southeast's largest electric furnace to our steel-making facilities.

This new, 60-ton giant will increase our output of steel ingots by 50%, resulting in a corresponding increase in the production of steel products bearing the name "DIXISTEEL."

This one new, ultra-modern furnace will produce half as much steel as our present three 75-ton open hearth furnaces, which produced over 200,000 tons of steel ingots in 1951.

Now more than 300,000 tons of DIXISTEEL will annually find its way into the hands of our customers throughout Dixie, many of whom we have served for more than a half-century.

Atlantic Steel Company

MAKERS OF **DIXISTEEL** SINCE 1901

ATLANTA, GEORGIA • EMERSON 3441

Southern Construction Projects

(Typical and important Projects Excerpted from Daily Construction Bulletin)

TEXAS

(Continued from page 39)

FORT WORTH — Jarvis Heights Apartments plans 47 duplex apartment houses, \$945,000.

FORT WORTH — Texas Christian University received low bids of \$714,784 to McCann Construction Co., for religion buildings.

FREESPORT — Brazosport Independent School District plans school, \$2,000,000.

FREESPORT — Dow Chemical Co., Texas Division, let contract to Southwestern Construction Co., Houston, for \$2,600,000 laboratory and research center.

HARRIS COUNTY — District Engineer, Galveston received low bid of \$883,077 from Atlantic Gulf & Pacific Co., New York for dredging Houston Ship Channel.

HOUSTON — Anderson-Clayton Co. plans office building, \$2,790,000.

HOUSTON — Young Men's Christian Association plans five branch buildings, \$2,000,000.

HOUSTON — University of Texas received low bid of \$3,998,000 from Manhattan Construction Co., for dentistry building.

HOUSTON — Harris County Water Control & Improvement District No. 32 plans for water and sewer system improvements, \$550,000.

KENEDY — Kennedy Independent School District plans building program, \$675,000.

LAREDO — Corps of Engineers, Galveston, let contract to Cage Brothers, 506 Travis Bldg., San Antonio at \$642,462 for dormitories and mess, Laredo Base.

MIDLAND — City approved \$1,500,000 bond election for developing water wells.

MIDLAND — First Baptist Church Congregation let contract to Houston Hill, Inc., at \$1,000,000 for building.

SAN ANTONIO — Housing Authority let contract to Robert M. Guyler, Crystal City, at \$1,077,340 for housing project.

STARBUCK COUNTY — United States and Mexico Governments has approved \$9,630,000 appropriation approved by House, for Falcon Dam on Rio Grande, and \$1,500,000 for initial work on projected Anzaladas diversion dam.

TENARKANA — Corps of Engineers received low bid from Phil S. Hardy Construction Co., Texarkana, at \$748,289 for enlisted men's barracks, Red River Arsenal.

VICTORIA — Corps of Engineers, Galveston, received apparent low bid of \$1,633,722 from Sheldon Construction Co., Dallas, for construction of twenty-one buildings, Foster Base.

VICTORIA — City approved \$1,020,000 bond issue for waterworks and \$545,000 for water system improvements, \$230,000 for sewer improvements.

WICHITA FALLS — Housing Authority let contract to T. C. Bateson Construction Co., 618 Irwin-Kessler Bldg., at \$1,247,697 for housing project.

VIRGINIA

Chesapeake & Potomac Telephone Co. plans expenditures of \$3,545,800 for improvements and expansion.

State Board of Education, Richmond, approved \$1,425,677 for state school construction, includes 20 projects.

ARLINGTON — Board of Education received low bid of \$127,000 from Scribner Construction Co., Washington, D. C., for Fillmore Primary School.

BRISTOL — City received low bids for water supply system, Division No. 1, new water filtration plant, Butler & Cobbs, Montgomery, Ala., \$597,100; Division No. 2, mechanical work for new water filtration plant, J. F. Pritchard & Co., Kansas City, Mo., at \$333,300; and Division No. 3, raw water supply line and filtered water line, Lock Joint Concrete Pipe Co., at \$615,167.

BRISTOL — Housing Authority let contract at \$1,283,000 from James E. Green, Johnson City, Tenn., for low rent housing project.

BLACKSBURG — Board of Education let contract at \$667,744 to Wo English Construction Co., Altavista, for High School.

CHATHAM — City, H. V. Fitzgerald, Mayor, let contract at \$128,240 to English Construction Co., Altavista, for filtration plant.

DUN LORING — Board of Education received low bid of \$124,418 from Burroughs & Preston, Washington, D. C., for addition to school.

FAIRFAX — Fairfax County School Board let contract at \$280,012 to Howard-Mitchell Construction Co., Richmond, for new Forestville Elementary School.

FAIRFAX COUNTY — Fairfax County Board of Education received low bid of \$863,324 from Howard-Mitchell Construction Co., Richmond, for Burgundy & West Fairfax Elementary School.

FAIRFAX COUNTY — Fairfax County Board of Supervisors, VEPKO Bldg., Fairfax, let contracts for installation of sewers: Contract No. 30A, Payne & Oliver Concrete Co., Inc., Falls Church, at \$102,236 and Contract 10B, Nance & Vivadelli, Arlington, at \$96,139.

FORT EUSTIS — Corps of Engineers, Norfolk, received low bid from J. A. Jones Construction Co., 29 W. Fourth St., Charlotte, N. C., at \$3,703,103 for shop, storage, school, administration facilities and bachelor quarters.

FREDERICKSBURG — Corps of Engineers received apparent low bid from J. Kennon Porter Construction Co., Richmond, at \$259,831 for training facilities, Hill Reservation.

HONAKER — Board of Education let contract at \$461,490 to Wilson Construction Co., Radford, High School.

JOHN H. KERR DAM & RESERVOIR — Corps of Engineers received low bid of \$198,395 from Neal Construction Co., Salem, Va., for alterations to Water Supply and Sanitary Sewer System.

LANGLEY FIELD — National Advisory Committee for Aeronautics received low bid from Doyle & Russell, 823 W. 21st St., Norfolk, at \$3,122,000 for supersonic tunnel.

LEESBURG — Eubank & Caldwell, Boxley Bldg., Roanoke, Architects, for consolidated high school, \$900,000.

MANASSAS — Prince William County approved \$2,700,000 bond issue for school construction.

NORFOLK — Norfolk Redevelopment and Housing Authority received low bid of \$6,133,000 from Virginia Engineering Co., Inc., Newport News, for housing project.

NORFOLK — Housing Authority let contract to Frank H. Conner Co., Charlotte, N. C., at \$1,141,000 for low rent public housing community.

NORFOLK — Board of Education let contract at \$450,000 to Conrad Brothers, for Lindenwood Elementary School.

NORFOLK — Board of Education, Edwin W. Chittum, 51 Nushbaum Bldg., let contract at \$2,452,490 to Graham Brothers, Richmond, for Cradock High School.

NORFOLK — Navy Department received low bid from Portsmouth Paving Co., Portsmouth, at \$26,318 for repairs to roads.

NORFOLK — Navy Department received low bid from Ames & Webb, Norfolk, at \$139,973 for resurfacing and relocating East Field Boulevard.

NORFOLK COUNTY — Board of Education let contract at \$2,384,480 to Irons & Reynolds, Washington, D. C., for Norview High School.

OCEANA — Housing Authority let contract to Housing Engineering Co., Baltimore, at \$2,198,000 for Oceana-Dam Neck housing project.

PORTSMOUTH — City let contracts for Westhaven Sewers; J. L. Smith, Portsmouth, at \$119,704 on Section Fb; Leo Butler Co., College Park, Md., at \$667,400 on Section Ea and Fairbanks-McCoy on Section Fc.

QUANTICO — Navy Department, Washington, D. C. received low bid from Rogers & McGrath, Washington, D. C., at \$317,000, Item 1, for rehabilitation of bachelor quarters.

STAFFORD — Board of Education let contract at \$824,000 to Endebeck-White Co., Hilton Village, for Suffolk Negro High School.

STAFFORD — Reid & Hope, Suffolk, submitted low bid of \$136,877 for Tri-County Suffolk Health Center.

WEST VIRGINIA

Chesapeake & Potomac Telephone Co. plans spending \$1,613,000 for improving and extending telephone facilities.

CHARLESTON — Sacred Heart Church Congregation plans addition to rectory, \$75,000.

CHARLESTON — Union Truck Terminal extending \$750,000 for rebuilding freight building.

HUNTINGTON — John Sloan, New York, N. Y., making surveys for harness race track.

(Continued on page 36)

A. I. A. to Advance 39 to Fellowship Level

Among the thirty-nine members to be advanced to fellowship status June 25 by the American Institute of Architects will be thirteen in the states from Maryland south.

The jury of fellows who met recently to make the selections was made up of Albert Simons, William J. Bain, John F. Harbeson, Alexander C. Robinson, III, and John F. Staub, who acted in place of Chairman H. Daland Chandler.

The thirteen members to be so honored are:

James Herbert Gailey, Atlanta, Ga.; Lawrence Hill, University City, Mo.; Eugene Herbert Knight, Birmingham, Ala.;

Thomas Hall Locraft, Washington, D. C.;

Walter Frederic Martens, Charleston, W. Va.;

Addison Stayton Nunn, Houston, Tex.;

Noah Webster Overstreet, Jackson, Miss.;

Clyde Collins Pearson, Montgomery, Ala.;

Clark S. Pendleton, Lynchburg, Va.;

Arthur Neal Robinson, Atlanta, Ga.;

Cyrus Edgar Silling, Charleston, W. Va.;

Delos Hamilton Smith, Washington, D. C.;

Lucius R. White, Jr., Baltimore, Md.

Kentucky Low Road Bids Total \$3,235,969

Low bids for the projects opened last month by the Kentucky Department of Highways approximated \$3,235,969. Listed by counties, the projects were:

Bell—S 164(2); RS 7-484, Oaks-Brownies Creek Road, 4.816 miles grade, drain and traffic bound limestone, Burchett Trucking Co., Prestonsburg, Ky., \$134,304;

Cumberland—F 199(7); SP 29-187, Burkesville-Albany Road, 1.402 miles bituminous surface class C-1 and A-2 seal, Monroe-Cumberland Crushed Stone Co., Inc., Burkesville, Ky., \$74,008;

Muhlenberg—F 40(6); SP 89-3, 89-383, Greenville-Dovey-Central City Road, 5.277 miles bituminous surface class I, R. E. Gaddie, Inc., Bowling Green, Ky., \$297,948;

Trimble—F 536(2); SP 112-118, Bedford-Campbellsburg Road, 315 of a mile bituminous penetration surface and seal, H. K. Williams, Louisville, Ky., \$15,858;

Webster—F 526(13); SP 117-89, Madisonville-Henderson Road, 617 of a mile bituminous surface class I, Corum & Edwards, Inc., Madisonville, Ky., \$315,317;

Whitley and McCreary—F 224(10); SP(118-220) (74-33), Corbin-Cumberland Falls Road, 708 of a mile bridge and bituminous surface class I or H approaches, R. R. Dawson Bridge Co., Bloomfield, Ky., \$520,767;

Hart—SP 50-100, Horse Cave-Jackson Highway, .017 of a mile sidewalk, W. M. Hooper, Caneyville, Ky., \$2,277;

Trigg—SP 111-34, Rockcastle-Wallonia Road, .189 of a mile grade, drain and traffic bound limestone, Lyons &

Breeden, Rogersville, Tenn., \$41,172;

SP Group 1 (1952), Anderson, Nelson and Washington, 17,549 miles bituminous surface class I and rock asphalt surface, Geoghegan & Mathis, Bardstown, Ky., \$208,511;

SP Group 2 (1952), Nelson-Hardin Counties, 16,870 miles bituminous surface class I and rock asphalt surface, Geoghegan & Mathis, Bardstown, Ky., \$201,343;

SP Group 3 (1952), Hardin County, 4,749 miles bituminous surface class I, Waters Construction Co., Elizabethtown, Ky., \$35,737;

SP Group 4 (1952), Laurel County, 15,001 miles bituminous surface class I and rock asphalt surface (using class I binder), Middle West Roads Co., Noblesville, Ind., \$154,670; bituminous class I and F, rock asphalt surface (using class F binder), Curtis Cantrill, Middlesboro, Ky., \$152,669;

SP Group 5 (1952), Harlan-Leslie Counties, 31,451 miles bituminous surface class F, Southern Quarries & Contr. Div. of N. Y. Coal Sales Co., Columbus 15, Ohio, \$172,975;

SP Group 6 (1952), Grayson-Muhlenberg-Ohio Counties, 7,349 miles bituminous surface class I and rock asphalt surface, R. E. Gaddie, Inc., Bowling Green, Ky., \$80,450;

SP Group 7 (1952), Hopkins County, 9,154 miles bituminous surface class I, Corum & Edwards, Inc., Madisonville, Ky., \$68,513;

SP Group 12 (1952), Fayette-Bourbon-Scott Counties, 15,600 miles bituminous surface class I and rock asphalt surface, Hinkle Contracting Co., Paris, Ky., \$192,897;

SP Group 14 (1952), Kenton-Campbell-Boone Counties, 13,618 miles bituminous surface class I and rock asphalt surface, (using crushed gravel), Fuller-Davies Co., Covington, Ky., \$102,022;

SP Group 15 (1952), Boyd-Lawrence Counties, 27,020 miles bituminous surface class I, (using slag aggregate), Middle States Bituminous Corp., Ashland, Ky., \$204,075;

SP Group 16 (1952), Powell-Wolfe Counties, 31,726 miles bituminous surface class I, A. W. Walker & Son, Mt. Sterling, Ky., \$144,660;

SP Group 17 (1952), Letcher County, bituminous surface class C-1, Ferguson & Milliken Paving Co., Inc., Franklin, Ky., \$43,473;

Christian—RS 24-35, Castleberry Road, 5,192 miles reconstruction and traffic bound limestone (using fourteen-inch R.C. piling), Robinson & Lashbrook, Owensboro, Ky., \$96,872; reconstruction and traffic bound limestone (using twelve-inch piling), Robinson & Lashbrook, Owensboro, Ky., \$94,267;

Knox—RS 16-390, Barbourville-Walker Memorial State Park-Disham Springs, reconstruction and traffic bound limestone (using fourteen-inch concrete road), .950 of a mile, R. R. Dawson Bridge Co., Bloomfield, Ky., \$48,279; reconstruction and traffic bound limestone, (using ten-inch steel piling), Wood & Barton, Frankfort, Ky., \$45,503;

Meade—RS (82-303) (82-703), Ekron-Hill Grove-Buston-Bewleyville Road,

Baltimore Engineers Club Honors Retiring Treasurer



Above—Leland P. Kimball, for almost two decades treasurer of the Engineers Club of Baltimore, was given a testimonial dinner early this month, at the same time being elected treasurer emeritus. Mr. Kimball is engineer of buildings for the Baltimore & Ohio Railroad. A native of Massachusetts, he started his railroad career with the Illinois Central, joining the B. & O. ranks in 1918. In the picture, left to right, are Paul L. Holland, chairman of the dinner committee, Mr. Kimball, and Gurney H. Dayett, incumbent club president.

RS (82-663), Gaston-New US 60-Cut Off Road, RS (82-303) (82-703), reconstruction and traffic bound limestone, 3,875 miles, Tanner Brothers, Jeffersonville, Ind., \$23,567;

RS (82-303) (82-703) (82-663), combined reconstruction and traffic bound limestone, Sam Nally Co., Bardstown, Ky., \$30,326;

Metcalfe—RS (85-324) (85-344), Seven Springs Church and Center-Cave Hill, School Rd., reconstruction and traffic bound limestone, 3,625 miles, Sam Nally

Co., Bardstown, Ky., \$33,982;

Todd—RS 110-626, Blue Hole Road, .160 of a mile reconstruction and traffic bound limestone, W. M. Hooper, Caneyville, Ky., \$37,053;

Warren—RS 114-288, Bowling Green-Morgantown-Richardsville Rd., 5,602 miles reconstruction and bituminous surface class C-1, Circle Construction Corp., Bowling Green, Ky., \$49,140; reconstruction and bituminous surface class F, R. E. Gaddie, Inc., Bowling Green, Ky., \$58,102.

New Building Erected for Bottle-Gas Firm

(Illustration Below)

A new building was recently completed at 750-850 N. W. 73rd Street, just west of 7th Avenue, for Miami Bottle-Gas Co.

Well located for industry, distribution and plant operation, the building is designed by Robert Fitch Smith, Architect, and was built by Frank J. Rooney, Inc., Contractor.

Completion of the building rounds out a five-year program which provides for complete modernized operation in the firm's business. This building provides additional warehouse storage, additional show room space, and additional operating facilities for this rapidly growing concern.

The Miami show rooms and offices at 101 West Flagler Street, the branch office and show room at 1911 Ponce de Leon Boulevard in Coral Gables, together with the new building, provides one of the finest and most complete plants in the south for the expected growth of the South Florida region.

The spacious new building is of concrete, steel, and aluminum construction throughout. In plan it provides quick and efficient movement of all services rendered to users of bottled gas and gas equipment.

The building has a railroad track frontage of 600 feet.



Choice of the Nation's Fleet Owners

GENERAL CONTRACTORS

[illegible]

GENERAL CONTRACTORS

[illegible]

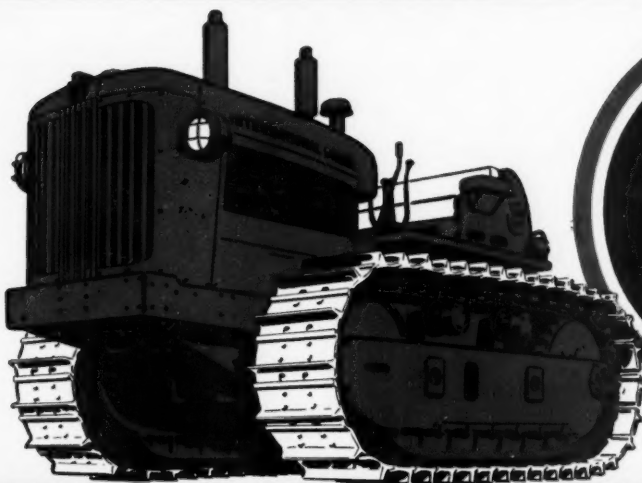
GENERAL CONTRACTORS

Reider & Reischer
Rivier, David
Rivier Construction Company
Rush Construction Company
Ryan Construction Corporation
Ryan Construction Company
Salvucci, Peter
Santini Construction Company
Savin Construction Co., Inc.
Scheidt, Ralph D.
Schell, Robert
Schell and Patterson
Schick Contracting Co., John
Schick, Inc. W.H.
Schiffman, Samuel
Silver State Const. Co.
Sloan Construction Co., Inc.
Smalley, D.R.
Smith Construction Company
Smith, John
Snare Corporation, Frederick
Sons Const. Company, Inc.
Sons Const. Company, Inc.
Steenkamp, Inc. E.
Stewart, Howard
Stonk City Const. Company
Stovall, R.B.
Stovall, J.D. and C.M.
Stuenkel, James
Taglio Construction Company
Tamm Construction Company
Tectech & Son Inc.
Tennant Construction Co.
Texas Construction Company
Thompson, C.G.
Thompson, Vance
Tomlinson, T.R.
Torrington Construction Co., Doug
Trastelle, Inc. J.H.
Trotter, J.R. Stewart
Vaccaro and Johnson
Vinson United Bell Company
Vinson, J.R.
Wentzel Construction Co.
Wentzel Construction Co.
White Gas Excavators
Whitman Co., Inc. D.W.
Wick Contracting Company
Wright, John D.
Wynne & Company, Inc., Gul

Bakersfield, California
Tucson, Arizona
Mankato, Minnesota
Scranton, Pennsylvania
Pittsburgh, Pennsylvania
Evanston, Illinois
Waltham, Massachusetts
New York, New York
East Hartford, Connecticut
Fort Norfolk, Colorado
Chicago, Illinois
Garden City Park, L. I., N. Y.
New York, New York
Casper, Wyoming
Franklin, Virginia
Providence, Rhode Island
Salina, Ohio
Falmouth, New York
Muskegon, Michigan
New York City, New York
New York City, New York
New York City, New York
Los Angeles, California
Indianapolis, Indiana
Bedford, Indiana
Dallas, Texas
Washington, D.C.
Ciano, Texas
Mexico, Mexico
Durham, North Carolina
Sacramento, California
Territory of Hawaii
Dallas, Texas
Paris, Texas
Pawnee, Oklahoma
Ogden, Louisiana
Ogden, Louisiana
Homestead, Florida
Miami City, Montana
St. Louis, Missouri
Bacley West Virginia
Lubbock, Texas
Aurora, Iowa
Burgess, Iowa
Pineville, Connecticut
Syracuse, New York
Cincinnati, Ohio
Tulco, Texas
Malen, Massachusetts
New York City, New York

MINIP

Allen Brothers	Oliver Springs, Tennessee
A & H Coal Co.	Shannon, West Virginia
A & P Mining Co.	Enterprise, West Virginia
Bitner Fuel Co.	Jame Lee, West Virginia
B. J. & J. Construction Co.	Pound, Virginia
B & M Coal Co.	Windville, Pennsylvania
Bolling Construction Co.	Pound, Virginia
Bortz & Bortz Coal Co.	Stoneboro, Pennsylvania
Bowling, Terry	Bluefield, West Virginia
Brown, Earl M.	Clearfield, Pennsylvania
Brown & Youngblood	Trafford, Alabama
Cassella Coal Co.	Buckhannon, West Virginia
Cleghorn, I. F.	Clarkburg, West Virginia
Cleveland Cliffs Mining	Nashua, Minnesota
Coal Strippers, Inc.	Weston, West Virginia
Consolidated Coal Co.	Phillips, West Virginia
	Jenkins, Kentucky



FLEET OF BIG RED INTERNATIONAL TD-24s

MINING

NAME
Coronet Phosphate Co.
C. P. Coal Co.
Daugherty Coal Co.
Deannville Coal Co.
Drummond Coal Co., H. E.
Ford & Gaskill
Galloway Coal Mining Co.
Greasy Ridge Coal Co.
Greasy Ridge Coal Co.
Hanna Coal Co.
Hanna Co., M. A.
Hazelwood, George F.
Imperial Coal and Construction Co.
Kelly Coal Co.
Liles and Son, H. B.
Mays Coal Co.
McCartell & Grimes
McCombs Bersley
Michigan Limestone & Chemical Co.
Mulliken, Harry
Nashville Coal Co.
New Shamuel Mining Co.
Ohio River Collieries
Olive Iron Mining Co.
Pendergrast, Job
Phillips Dodge Corp.
Piscanos Mather Co.
Pulman & Greene
Quinn, Ted
Radin Bros.
R. & V. Contracting Co.
Santbar Co.
S. B. & S. Co.
Scott Coal Co.
Shatzer, Robert
Sherman, Joe
Snyder Brothers
Stripping Contractors
Trotter Bros., Inc.
Triax Trax Coal Co.
Urbell Coal Mines
Walsh Ridge Corp.
Wain & Sons Coal Co., Charles
Whitaker Coal Co., H. B.
Yates Coal Co.

LOGGING

NAME
Abaco Lumber Co.
Anderson, Mel
Arch Cape Logging Co.
Arrow Mills
Bohema Lumber Co.
Brown and Berry Lumber Co.
Brown Tie and Lumber Co.
Buck Mountain Logging Co.
Cal Ida Lumber Co.
Cavase Lumber Co.

Plant City, Florida
Farmont, West Virginia
Terra Alta, West Virginia
Weston, West Virginia
Jasper, Alabama
Greensboro, Pennsylvania
Carlton Hill, Alabama
Atlanta, Georgia
Ironton, Ohio
Adena, Ohio
Hibbing, Minnesota
Cumberland, Maryland
Rupert, West Virginia
Reeduck Knobs, West Virginia
Winona, West Virginia
Clarion, Pennsylvania
Sanders, Arizona
Scottown, Ohio
Rogers City, Michigan
Liberty, Pennsylvania
Nashville, Tennessee
Weedville, Pennsylvania
Columbus, Ohio
Caledonia, Michigan
& Va., Minn.
Ranella, West Virginia
Douglas, Arizona
Hobbing, Minnesota
Owens Mills, Pennsylvania
Sterling Run, Pennsylvania
Akron, Ohio
Clarkburg, West Virginia
Pittsburgh, Pennsylvania
Pittsville, Pennsylvania
Clarkburg, West Virginia
Phillips, West Virginia
Hawthorn, Pennsylvania
Cowansville, Pennsylvania
Clearfield, Pennsylvania
Mt. Hope, West Virginia
Pockinville, Illinois
Healy River, Alaska
Rasmussen, Pennsylvania
Olive Springs, Tennessee
Norton, Virginia
Ashland, Kentucky

LOGGING

NAME
Clackamas Logging Co.
Coastal Plywood Co.
Daugherty Logging Co.
DeVilbiss, C. Dudley
Fish Logging Co.
Florida Lumber Co.
Ford, Donald A.
French Oil Co.
Gooch Logging Co.
Hammond Lumber Co.
Hines Lumber Co.
Ladew Lumber Co.
Long Bell Lumber Co.
Mareaux Logging Co.
Matheny, S. P.
McCallie Logging Co., B. L.
McCallie Bros. Logging Co.
McHurt Bros. Construction Co.
Michigan California Lumber Co.
Mortenson, Inc., Lee
Nash Lumber Co., J.
N.S.P. Logging Co.
Opperman, Ralph
Paul Buysen Lumber Co.
Portland Creek Logging Co.
Potlatch Forests, Inc.
Rasee Logging Co.
Raynor, Inc.
Russell & Sons, V. R.
Russell & Gillette
Schuler Construction Co., J. F.
Sustine Forest Products Co.
Smith Lumber Co., Ralph L.
Smith, Ralph
Snoqualmie Falls Lumber Co.
Stoddard, Roy
Sweet Brothers Lumber Co.
Ulrich, William
Union Lumber Co.
Vandbury & White
Westside Lumber Co.
Wymann Lumber Co.
White River Lumber Co.
Williamette Valley Lumber Co.
Wooley, Harold

PIPELINE

NAME
Anderson Brothers
Anderson Construction Co.
Associated Pipe Line Corp.
Bachtel Corp.
Bishop and Lock
Britton Contracting Co.
Burden Construction Co., O. R.
Houston, Texas
Salerno, Illinois
Houston, Texas
San Francisco, California
Dallas, Texas
Washington, Pennsylvania
Wichita Falls, Texas

*The list of TD-24 fleet owners is growing every day, as is the vastly longer list of owners of single TD-24 tractors. For this reason the above list is not complete. If you're a TD-24 fleet owner whose name is missing, we'll catch you next time.

PIPELINE

NAME
Fulton, R. W.
El Paso Natural Gas Co.
Gentry Construction Co., H. L.
Mahoney Contracting Co.
Midwestern Constructors
Morrison Construction Co.
Oklahoma Construction Co.
Price Company, H. C.
Saght Company, H. A.
Smith Contracting Co.
Smith Contracting Corp.
Texas Louisiana M. K.

MISCELLANEOUS

NAME
Alaska Road Commission
Baltimore, City of
Bethlehem Steel Co.
Commonwealth Edison Co.
Consumers Power Co.
Dane County Highway Dept.
DuPont, E. I. (Defenders & Co., Inc.)
Duquesne Light Co.
Kahala Sugar Co., Ltd.
Lone Star Steel Co.
Nigerat Mohawk Power Corp.
Northern Indiana Public Service Co.
Public Service Co., No. Illinois
Shelby County Highway Dept.
Tennessee Coal and Iron Co.
Tennessee Valley Authority
U. S. Atomic Energy Commission
U. S. Engineers
W. Virginia State Road Commission

Lubbock, Texas
El Paso, Texas
Jackson, Mich.
Lansing, Michigan
Tulsa, Oklahoma
Austin, Texas
Dallas, Texas
Bartlesville, Oklahoma
Campbellsville, Kentucky
Ft. Worth, Texas
Alexandria, Virginia
Ft. Worth, Texas

CANADIAN CONTRACTORS

NAME
Iron Ore Company of Canada, Ltd.
Bell Asbestos Corp.
Fraser Brace Ltd.
Shawinigan Power, Ltd.
McLennan Construction Co., Ltd.
Ontario Hydro Electric Commission
Peel Construction Ltd.
Carter Construction Ltd.
Western Coal Stripping
Steve Peterson
Bridgman Construction Ltd.
Morrison Knudsen (Canada) Ltd.
Alaska Fine Ltd.
Steepleport Iron Mines Ltd.
Aluminum Co. of Canada
Celtnese Corp. Ltd. of Canada

Montreal
Albion, Quebec
Montreal
Montreal
Pictou, Ontario
Toronto
Brampton, Ontario
Toronto, Ontario
Minto, N. B.
Winnipeg, Manitoba
Regina, Saskatchewan
Vancouver, B. C.
Vancouver, B. C.
Steepleport, Ontario
Montreal, Quebec

INTERNATIONAL HARVESTER COMPANY
CHICAGO 1, ILLINOIS



INTERNATIONAL
POWER THAT PAYS





Above—Virginia early this month opened its \$9,000,000 George P. Coleman memorial bridge across the York River at Yorktown. The structure is 3,750 feet long and is the largest double swing span. Each of the two swing spans, which rotates on the giant piers at the right, is 500 feet long and weighs more than 900 tons. Horizontal clearance at the draw is 420 feet. Vertical clearance when the draw spans are closed is 60 feet.

Virginia Opens \$9,000,000 York River Bridge

Yorktown, scene of the historic British surrender of revolutionary war days, saw another victory early this month when the Virginia State Highway Commission opened the new \$9,000,000 George P. Coleman memorial bridge, thus extending Route 17 uninterrupted across the York River to the strategically important Hampton Roads area and to points further south.

A 3,750-foot long giant of concrete and steel, the structure has the distinction of being the largest double swing-span bridge in the world. Closed these swing

spans allow a sixty-foot clearance between the water and lower chords of the trusses. Open, they provide unlimited vertical clearance and a 450-foot wide channel.

The two pivot spans are each 500 feet long. They weigh 925 tons and operate on great piers constructed by sinking caissons seventy feet into the river bed. Three twenty-horsepower motors swing the heavy weight, these controlled from a tower straddling the 26-foot roadway of the bridge.

Gov. John Stewart Battle, and his chief

highway commissioner, Gen. James A. Anderson, were joined by many civic, military and naval leaders, including Gov. Theodore R. McKeldin, of Maryland, and Russell H. McCain, chairman of the Maryland roads commission, in the three-hour prelude to opening the bridge to traffic.

Grey-clad state police estimated 10,000 spectators gathered under sunny Virginia skies to witness the event, sponsored jointly by the Department of Highways and a bridge dedication commission headed by Raymond B. Bottom, Newport News publisher, with the cooperation of the Virginia State Chamber of Commerce.

Following an address by Justice C. Vernon Spratley of the Virginia Supreme Court of Appeals, memorializing George P. Coleman, a former highway commissioner, Mrs. Coleman was introduced by General Anderson. Her granddaughter, Miss Cynthia Tucker Kimbrough, then unveiled a plaque at the Yorktown end of the bridge. Governor Battle snipped the ribbon opening the bridge and proceeded to the Gloucester Point side to repeat the ritual.

Climax of the affair was operation of the two draw spans. Midstream, the "Virginia," the ferry which the bridge supplants, circled around the draw piers, and stood by with the official party aboard, as the big trusses slowly swung into open position, and the Cruiser U.S.S. Macon plied full-speed through the 450-foot opening, her sharp bow cutting a third flag-bedecked ribbon. It was to accommodate the largest of naval ships that

Below—Left—Centered astride one of the gigantic draw spans is the control tower. Note the I-Beam Lok grid floor. Right—Looking from the draw tower toward the Yorktown end of the bridge. The frame in the distance is the safety gate, which drops guillotine-like when the draw spans are opened. The motorcade is the official party led by Gov. John Stewart Battle of Virginia during the dedication.





the twin draw spans were embodied in the structure's design.

The new bridge is carried on twenty piers. The cantilever steel is supported on piers built upon six giant caissons buried deep in the river bottom. On two of these are erected the swing span shafts. Although invisible, the caissons are equivalent in size to a 10-story building. They measure 52 by 66 feet at the top and are 110 feet high.

The bridge is a combination of cantilever arms, deck plate girders, suspended deck truss spans and deck anchor spans. Length of the suspended deck truss spans is 210 feet; of the deck truss anchor spans, almost 559 feet. The Yorktown, or southern approach is 490 feet long. The approach at the Gloucester Point end extends 720 feet.

Estimates place weight of the steel superstructure at 10,720,000 pounds. This represents 178 carloads of steel. The 5-027 pieces of steel shipped for the super-

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Above—Left—Size and heavy design of the draw spans are emphasized by the heavy Cruiser Macon, as she courses full-speed through the 450-foot horizontal opening. **Above—Right—**Both draws are shown in the open position. The spans are 500 feet in length. One weighs 926 tons; the other about twenty-five tons less. The pivot piers are forty-four feet in diameter. They have three-foot circular walls and are capped with a five-foot concrete slab. Inside is a three-foot thick concrete wall in the shape of a cross.

The ferry in the foreground is the Virginia, which the new \$9,000,000 bridge replaces.

Below—Left Top—Plate girder spans at Yorktown end of the new \$9,000,000 York River bridge. Similar construction was used to the Gloucester Point shore. **Right Top—**The American Bridge division of United States Steel Corp. furnished and constructed the superstructure. John Penry, third from left on first row, was the erection superintendent. Others in the picture are Howard Whitney, General Electric, Richmond, Marion E. Chapman, of American Bridge division, Roanoke, and C. P. Hamilton, of General Electric. Back row, left to right, are John H. Pharis, General Electric, Roanoke; J. M. Richardson, of Richardson-Wayland Electrical Co., Roanoke; Herbert A. Davies, vice president of American Bridge division, Roanoke, and E. G. S. Maxwell, General Electric, Charleston. **Lower Left—**Miss Cynthia Tucker Kimbrough, granddaughter of the late George P. Coleman, Virginia highway commissioner for whom the bridge is named, unveils the memorial plaque. **Lower Right—**On the reviewing stand, as guests of Virginia Governor, John Stewart Battle, were Gov. and Mrs. Theodore R. McKeldin of Maryland, also Mrs. George P. Coleman. Others included Russell H. McCain, chairman of Maryland's road commission, Gen. James A. Anderson, chairman of Virginia's State Highway Commission, presided. A detachment of Monticello Guards lent colonial atmosphere to the scene.





Above—Left—The Baltimore-Washington superhighway is a fully controlled access route with two 24-foot reinforced concrete pavements separated by a parkway strip ranging from 50 to 138 feet wide. This stretch is in the vicinity of the Friendship International Airport, where three interchange grade separations and two grade separation structures were required to permit Baltimore and Washington traffic to reach the big Anne Arundel County airport. In the foreground is the floor of an overhead crossing. The two main pavements extend across the twin bridges and on under two overpasses in the distance. A turn-off is seen at the middle left. Right—Twin bridges carry the super-road over the Pennsylvania Railroad and Stony Road.

Washington-Baltimore Super-Road Moves Along

Washington, the national capital, and Baltimore, Maryland's metropolis, will be connected by the country's most modern highway upon completion of the multi-million dollar state and federal project now under construction across the almost thirty miles of rolling countryside between these two strategically important American cities.

Sixteen contracts totaling \$14,239,341 have been awarded and ten of them finished by the Maryland State Roads Commission along its share of the express route from the Baltimore city boundary to Jessup Road. Thirteen awards, most of them for bridges, have been let by the Federal Bureau of Public Roads. These total \$4,631,587 and with a grade separation for which bids have been opened

will exhaust the federal money available.

Legislation that would raise the authorized cost for the federal part of the project from Jessup Road to the District of Columbia and at the same time appropriate \$6,750,000 for continuation of construction is now before Congress. The House of Representatives has approved the additional expenditure. Yet to be done are three grade separations, a bridge over the Anacostia River, four more grading contracts and the paving and landscaping.

The Maryland-financed Baltimore-Jessup route is rapidly approaching the time when traffic will travel its 10,287-mile length. About sixty per cent of this distance is paved to the Hanover Road,

where a bridge structure is in the late stage of construction. Also completed is about a mile and one-half of similar highway linking the new dual route with the Friendship International Airport in Anne Arundel County. This elaborate interchange embraces five grade separations.

Maryland calls its part of the new super-road the Baltimore-Washington Expressway; federal authorities describe their part of the route as the "parkway," this latter part being under supervision of the National Park Service which was charged by law to construct and operate a protected, safe and suitable approach to the National Capital with access to nearby government establishments and the seat of the national government.

The two 24-foot reinforced concrete pavements of the Maryland expressway are separated by a parkway averaging 113 feet in width and varying from a minimum of 50 feet to a maximum of 138 feet. Only exception to this is the first one-half mile south of the Baltimore boundary where two 40-foot reinforced concrete pavements are divided by a 10-foot median strip.

Pavement slabs are uniformly 10 inches thick. Sixty-pound steel mesh reinforces the concrete three inches below the surface. Expansion joints are spaced 600 feet apart. Contraction joints are located at 40-foot intervals. Air entraining cement is used in the concrete pavement mix. The concrete or concrete and steel bridges are faced with stone where they cross the route.

The expressway is designed for a speed of 70 miles an hour. Grades are light with a maximum ascent of three per cent and a maximum descent of four per cent. Only one curve is in excess of two degrees, this being one degree greater. Minimum non-passing sight distance is 540 feet. Minimum passing sight distance is 850 feet and is in the restricted speed zone adjacent to the Baltimore city line.

Below—A bridge pier will rise from this foundation under a \$301,501 contract being carried out by Frank Pecora Construction Co. Mr. Pecora is shown inspecting the work.



Access to the expressway is fully controlled. Connections are provided with selected public roads only. Crossings at grade or direct connections with private driveways are prohibited. Elimination of intersections at grade has required structures at the Hollins Ferry Road, Nursery Road, Hammonds Ferry Road, West Nursery Road, at the Friendship airport connection, Ridge Road and Hanover Road. Access points are from Nursery Road to U.S. Route 301; the airport connection, at Dorsey Road and at Jessup Road.

Design of the expressway is such that an additional traffic lane can be added in each direction, if required, without loss of any original investment. These extra lanes would be built in the parkway adjacent to the existing pavements. At the narrowest point, the parkway width would then be 26 feet. Wide, flush stabilized shoulders are provided along the outside lanes. Width of the right-of-way is 400 feet.

The federal, or "parkway" part of the Baltimore-Washington superhighway runs from the end of New York Avenue, in the District of Columbia, through Prince Georges and Anne Arundel counties, Maryland, to a point south of Jessup Road. Length approximates 18.5 miles. Its design is similar to the Maryland-financed section. The design speed is 70 miles; maximum curvature about three degrees; maximum grade, four per cent. Curves sharper than 15 minutes are super-elevated; more than one per cent, spiralled.

The two concrete roadways will be placed on a grade so designed as to ultimately provide for a 36-foot pavement, with ten-foot shoulders. The median strip varies. Its minimum will be 15 feet. As on the Maryland part of the project, there will be no crossings at grade. Access will be provided at ten places on the 18.5-mile federal length. Major structures are being located at three rivers, two railroad branch lines and eleven highways, or a total of sixteen bridges.

In selecting the location of the federally-financed "parkway," no effort was made to secure tangents. Free use of curves made it possible to fit the topography better and to reduce the property

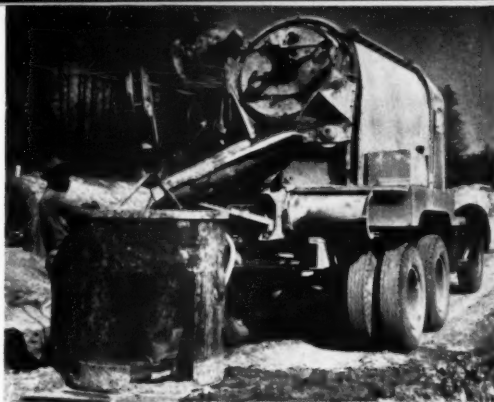
difficulties in establishing the right-of-way. Usually, each roadway was located separately and at varying distances from the other. At some points the roadways are 300 feet apart. No effort was made to keep the profile grade of each the same.

The Maryland section of the Baltimore-Washington route has reached its present advanced stage through a comparatively orderly development over the three and one-half years since the first award was

made. First allocation for the federal portion was made in 1942 by presidential direction to acquire the right-of-way and grade two sections. These sections totaled six miles.

Congressional Act of August 3, 1950 transferred the parkway to the National Park Service. The authorized cost was set at \$13,000,000 by the same legislation. It is this figure that would be raised by the present bill. Shortly after passage

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Above—Top—A Jaeger unit discharges transit-mixed concrete into an Insley bucket prior to placing by the Insley crane shown in bottom picture on the Dorsey Road intersection with the new Baltimore-Washington route.

Below—Left—Bridges to carry the federal part of the superhighway under the Baltimore & Ohio Railroad and Annapolis Junction Road. These structures are located on the eighteen and one-half miles being built by the Bureau of Public Roads. Right—Rigid concrete frame of one of the unfinished grade separation structures at Hanover Road.





Above—Left—One of the twelve bridges under contract on the federal government's part of the new highway is the \$518,296 dual spans being constructed across the Little Patuxent River by Brooklyn Engineering Corp. Right—Forms are erected on the Jessup Road steel beam bridge project.

Baltimore-Washington Super-Road

(Continued from page 39)

of the 1950 act, \$4,500,000 was made available for construction. The next summer Congress appropriated an additional \$1,200,000.

With this money, some thirteen contracts have been let covering the grading of an additional three and one-half miles of the parkway, bridges across the Patuxent and Little Patuxent rivers, two railroad and eight highway grade separation structures. A ninth grade separation is now in the contract stage.

First construction under the revived federal program was on the Patuxent River bridge which was started in January of 1951. Grading on the additional stretch has been largely completed. Progress on the bridges let early last year was good, although the beginning of work was much later than expected because of the steel situation. Award of additional contracts, including the nine miles of grading, are dependent upon the amount of money Congress appropriates.

Baltimore City is proceeding with the second stage of a thoroughway which connects with the Baltimore-Washington

route at the city line. The first leg, built under two contracts totaling \$925,000 has been in use for some time. Three bridges were part of this work. A fourth structure, known as the Russell Street bridge, is now in the early stages of construction at a cost approximating \$2,250,000.

Baltimore engineers point out that construction of such a route through the highly congested areas of a large city skyrockets costs considerably. They stress the fact that the figure, in addition to the grading and paving of the first leg involved \$1,250,000 for right-of-way, demolition of buildings and other settlements; \$2,250,000 for erection of three bridges within a distance of the slightly over one mile, and \$178,000 for installation of storm water drains.

Contractors for the completed Baltimore project, which was in two sections, were C. J. Langenfelder & Sons Co., \$336,986, and Trinity Building and Construction Co., \$557,072, for the first leg, and Whiting-Turner Construction Co., also Baltimore, at \$2,097,883 for the big Russell Street job which is now in its early construction stage. Ultimately, Russell Street will be extended to join with

Green and Paca streets at Camden.

Contractors for the federal part of the Baltimore-Washington parkway, are:

Project 1A2, bridge at Defense Highway, Troitino & Brown, Inc., Asheville, N. C., \$451,558;

Project 1A3, bridge over Landover Road, Capital Engineering Co., Inc., Washington, D. C., \$311,788;

Project 1A4, bridge over Baltimore & Ohio Railroad, Zerkel Construction Co., Inc., Arlington, Va., \$236,725;

Project 1B2, bridges over Riverdale Road and culverts at Carters Creek, Camden Construction Co., Inc., Baltimore, \$396,504;

Project 1C2, bridge at Good Luck Road, Troitino & Brown, Inc., Asheville, \$236,878;

Project 1E3, bridge over East-West Highway, Contee Sand & Gravel Co., Inc., Laurel, Md., \$243,601;

Project 1F2, bridge over Patuxent River, Allied Contractors, Inc., Baltimore, \$509,465;

Project 1G2, bridges under Laurel-Fort Meade Road, Bonwit Foundation Co., Inc., and Federal Foundation Corp., New York, \$246,496;

Project 1G3, bridges in Fort Meade area, Bonwit Construction Co., Inc., New York, \$150,800;

Project 1H2, bridges over Little Patuxent River, Brooklyn Engineering Corp., Baltimore, \$518,296;

Project 1J2, bridge under Baltimore & Ohio Railroad and Annapolis Junction Road, Contee Sand and Gravel Co., Inc., Laurel, Md., \$331,242;

Project 1F1-1G1, grading and drainage, Laurel-Bowie Road to Laurel-Fort Meade Road, Wright Contracting Co., Columbus, Ga., \$670,335;

Project 1F3, bridges over Laurel-Bowie Road, Camden Construction Co., Inc., Baltimore, \$327,897.

Contractors for the sixteen projects on the Maryland-financed part of the expressway, giving total authorized costs, are:

Project B-577-1-458, 1.371 miles main road, Baltimore City line to Patapsco River, and one structure at Hollins Ferry Road, \$1,418,386, Bero Engineering & Construction Corp., completed;

Project AA-368-1-358 and B-577-2-458,

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Below—Left—Paul Nahnibida, project engineer for the Maryland part of the project, confers with F. H. Marschalk (wearing hat), engineer in charge of bridge construction at the Hanover-Dorsey end of the new road, and Lee Jones, survey party chief. Right—Mr. Nahnibida, and N. B. Friesse, job engineer at Jessup, and W. J. Slacum, state roads inspector.





Above—Architect's conception of the \$9,000,000 carpet factory being built by the City of Greenville, Miss. for occupancy of Greenville Mills, a subsidiary of Alexander Smith, Inc. Steel for the building is being fabricated and erected by the American Bridge division of United States Steel Corp. Architects are Mallett and Associates, of Jackson, Miss.

Below—New \$2,000,000 plant built at Hampstead, Md., by Black & Decker Manufacturing Co. Containing 100,000 square feet of space, the building is so designed that it can be expanded in three directions. It has a structural steel frame, brick curtain walls. Austin Company was the designer and builder.



Late April Bids Total \$2,535,355 in Louisiana

Projects covered by the April 30 opening of the Louisiana State Highway Department resulted in low bids totaling \$2,535,355. Listed by parishes, the projects included:

Ouachita and Richland—State Project 2-01-14 and 2-02-14, 13.15 miles patching and widening existing concrete pavement, widening bridges and surfacing with bituminous wearing course, Forcum-James Co., Baton Rouge, La., \$705,939;

Richland—State Project 2-03-18, 15.471 miles patching and widening existing concrete pavement and surfacing with bituminous wearing course, Forcum-James Co., \$714,693, method 2;

Rapides—State Project 8-09-14 and 8-08-07, 13.099 miles patching and widening existing concrete pavement and surfacing with bituminous wearing course, Henry & Hall, Dubach, La., \$574,282, method 3;

Ouachita—State Project 67-09-08, .832 of a mile of bridge and portland cement concrete pavement, five 30-foot reinforced concrete spans, M. E. Pollard, Bossier City, \$205,294;

Sabine—State Project 132-07-03, 7.717 miles grading, drainage structures and gravel surface, L. A. Caldwell, Baton Rouge, \$220,318;

Jefferson—State Project 826-31-02 and 703-09-65, 1.357 miles bituminous surface treatment, Pierson Construction Co., Baton Rouge, \$24,757;

Winn—State Project 93-01-05, Part 2, base course gravel, or iron ore, spot-dumped, M. E. Pollard, Bossier City, \$39,553;

Claiborne—State Project 83-30-06, Part 2, 4.28 miles base course gravel, or iron ore alternate, Richard Coco, Marksville, \$26,449.

Oklahoma Awards Eleven Roads and Rejects Eleven Others

Low bids on eleven out of twenty-two construction projects were disapproved at the April session of the Oklahoma State Highway Commission because the commissioners said they didn't like the way they exceeded estimated costs.

For similar reasons commissioners rejected low bids on three jobs providing for cleaning and painting 40 steel bridges.

Construction rejections were on 43.784 miles of construction, 11 bridges and a drainage job.

Including the paint jobs, estimated cost of the projects was \$1,589,087. Combined low bids overshot that mark by \$80,307.

Contracts let amounted to \$2,461,661.

Approvals and disapprovals follow:

Sequoiah County—SAP-55(3), U. S. 64 from Muldrow east on new location, 4.170 miles 44-foot roadbed, 9-inch soil sub-base, 6-inch stabilized rock base course, 4-inch sand cushion, 8-inch portland cement paving 24 feet wide, 10-foot double bituminous paved shoulders, estimated cost, \$550,638; Oklahoma Construction Co., Muskogee, \$491,128;

Seminole County—RC-107(1), S. H. 56, drainage rectification at Wewoka creek, one-half mile northeast of Wewoka, estimated cost, \$10,930; Hunter Construction Co., Ada, \$11,435; disapproved;

Ellis County—F-261(4) Pt. 1, U. S. 283 from 1.320 miles south of U. S. 60, extending south, 7.048 miles 34-foot roadbed, 6-inch soil sub-base, 8-inch stabilized asphaltic base course, 24-foot single bituminous paving, 5-foot single bituminous paved shoulders, estimated cost, \$170,505; Elliott Brothers, Perry, \$175,762;

Ellis County—F-261(4) Pt. 2, U. S. 283 continuation of above project, 1.320 miles

similar construction, estimated cost, \$32,681; Elliott Brothers, \$33,035;

Muskogee County—F-273(2) Rdy., U. S. 62 from Cherokee-Muskogee county line west, 3.928 miles, 38-foot roadbed, 8-inch soil sub-base, 4-inch sand cushion, 8-inch portland cement paving, 24 feet wide, 7-foot bituminous paved shoulders, estimated cost, \$328,314; Dahlgren & Brooks, Oklahoma City, \$327,732;

Muskogee County—F-273(2) Br., U. S. 62 on above location, widening two 22-foot bridges to 28 feet adding concrete walks, reconstruction of two bridge approach slabs, 2 triple box reinforced culverts, 2 detour bridges, estimated cost, \$88,748; Stebbins Construction Co., Oklahoma City, \$94,982; disapproved;

MC-321(1) — Painting 17 bridges in Haskell, Muskogee, Okmulgee, Pittsburg and Wagoner counties, estimated cost, \$25,400; Gragg Construction Co., Henryetta, \$29,880; disapproved;

MC-322(1) — Painting 16 bridges in Adair, Cherokee, LeFlore, Muskogee and Sequoyah counties, estimated cost, \$35,500; L. M. (Jack) Frank, Oklahoma City, \$33,944;

MC-323(1) — Painting 17 bridges in Grant, Kay Noble and Payne counties, estimated cost, \$30,000; Gragg Construction Co., Henryetta, \$31,350; disapproved;

MC-324(1) — Painting 6 bridges in Caddo, Canadian, Lincoln and Payne counties, estimated cost, \$28,200; Randall Sharpe, Chickasha, \$29,610; disapproved;

Grady County—S-621(3) S. H., S. H. 92 from 8 of a mile southwest of S. H. 37 in Tuttle, extending southwest, 6.274 miles, 34-foot roadbed, estimated cost, \$60,187; Haskell Lemon, Oklahoma City, \$53,449; disapproved;

Grady County—S-621(4) S. H. Pt., S. H. 92 part of above project from 7.074 miles

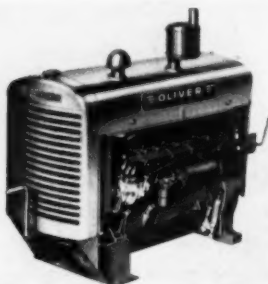
(Continued on page 50)

Equipment... Manufacturers News

Oliver Corporation Announces New and Heavier Power Units

A new and heavier series of power units developing 73 horsepower has been added to the stationary power unit line of Oliver Corp., Chicago, Ill. The new series, which is called the 199, joins the 166, 177, and 188 previously developed and announced by the company, and increases the work range of this new line of products.

Like the other units in the series, the 199 engines are available for gasoline and diesel fuels and engineering development is now being completed for LP gas.



Series 199 Oliver Stationary Power Unit Developing 73 Horsepower

The 199 is a six-cylinder engine which draws upon Oliver's long experience in the tractor field and features overhead valves, replaceable cylinder liners, and other design and engineering characteristics which have proved valuable in extending the life of tractor and power unit service.

The engine has a 4-inch bore, a 4-inch stroke, and a displacement of 302 cubic inches. Maximum continuous duty r.p.m. is 1800, with intermittent duty at 2000 r.p.m., and a governed speed range from 1200 to 2000 r.p.m., with close governor regulation. For the three other sizes, 188, 177, and 166, the carbureted engines develop 58, 48, and 31 maximum b.h.p., respectively.

Other features claimed by Oliver in its power unit line are:

Maximum of interchangeability of parts between diesel and carbureted models. Such interchangeable parts include cylinder blocks, connecting rods and, in the 199 series, pistons;

Interchangeable mounting dimensions between diesel and carbureted models;

New Bosch single plunger injection pump, which is simpler and less expensive to service.

Gardner-Denver Announces 600-Foot Portable Compressor

A new 600-cubic-foot portable air compressor has been added to the Gardner-Denver line, according to a recent report from Gardner-Denver Co., of Quincy, Ill.

The Gardner-Denver 600, the manufacturer states, has been designed from the ground up for 600-foot capacity. A rugged undercarriage is said to provide the stamina required for moving the machine over rough terrain to location on construction projects. The engine was selected to provide reserve power at moderate operating

speeds.

The compressor is an 8 and 6 1/2 by 6; operates at 1200 r.p.m., and is designed with large valve areas, large radius air passages, and carefully engineered ratio of low pressure to high pressure cylinders—features which are said to provide the rated 600-cubic-foot capacity with good compression efficiency.

Like other Gardner-Denver portables, the new 600 is a two-stage machine, with water-cooled compressor cylinders. Additional details may be obtained by writing to the manufacturer or to this publication.

New Caterpillar Catalog "Attachments Increase Profits"

"Attachments Increase Profits," claims the title of a new catalog that shows many possibilities of adapting Caterpillar Diesel Tractors to specific jobs.

The fully-indexed catalog explains uses and construction of each tractor attachment. Thirty action pictures supplement the catalog views. Specifications, drawings and dimensions are provided where needed.

Included are such practical and low-cost items as cab heaters, rain traps and air prescreens. Sizes of the attachments range upward to the steel cabs available with four models of tractors.

As a 32-page booklet bearing Form 30182, "Attachments Increase Profits," is available from Caterpillar Tractor Co., Peoria 8, Ill., or Caterpillar Dealers throughout the free world.

U. S. Steel Subsidiary To Build at Harrisburg

United States Steel's prefabricated housing subsidiary, Gunnison Homes, Inc., plans to undertake immediate erection of a new plant at Harrisburg, Pa., to prefabricate a revolutionary, insulated, steel military shelter perfected following years of research, according to Gen. John J. O'Brien, President.

The announcement followed a statement by Benjamin F. Fairless, President of United States Steel, that the Board of Directors of the United States Steel Corp. had approved the cost of constructing a plant by Gunnison Homes on a 50-acre tract adjoining Shiremanstown, near Harrisburg, which the company acquired more than a year ago.

Gunnison Homes, as a foremost producer of prefabricated dwellings in the country since 1936, will still continue to produce its popular homes at New Albany, Ind.

General O'Brien said that with the background of experience and knowledge gained from mass production of prefabricated structures, Gunnison Homes, working with architects and engineers of the Armed Forces, has now translated design and efficiency into a barrack-type building prefabricated almost entirely of steel.

Commenting on the Gunnison Homes development, Mr. Fairless said:

"Engineers of Gunnison Homes have now achieved a structure of much more immediate significance; an insulated, all-steel unit for hospitalizing and housing military personnel based anywhere in the world—from equatorial and temperate climates to sub-zero conditions of the Arctic."

Marion Power Shovel Co. Elects New Officers

Marion Power Shovel Co., of Marion, Ohio, has elected three new officers headed by John P. Courtright as president and general manager.

Mr. Courtright, with the company since 1927, has been executive vice president and formerly was sales manager. He succeeds Harvey T. Gracely, who because of illness has assumed an inactive status except for possible special assignments. J. Malcolm Strelitz, Marion attorney and industrialist, was elected chairman of the board.

Other new officers are Odrien F. Busick, Jr., vice president in charge of engineering, and Maurice V. Cornell, vice president in charge of sales. David E. Rizor was named assistant to the president in matters pertaining to sales and service.

Officers re-elected are Alex Gibson, vice president and treasurer; Merle Virden, secretary and assistant treasurer; Walter C. Kraft, assistant secretary; and Newton B. Schott, assistant secretary.

New directors on the 15-man board are Jay H. Maish, of Marion; James D. Mooney, New York industrialist; and Martin M. Issled, an investment advisor of New York. The three directors replaced are Mr. Gracely, Willis F. Slayton of Quincy, Illinois and T. Howard Green of Flossmoor, Illinois.

Other directors re-elected are Mr. Courtright, Mr. Gibson, and Mr. Strelitz, all of Marion; Randal Holden, Oscar Lasdon, Joseph Rogers, Arlen Swiger and Sol M. Zweifach, all of New York; Thomas C. Mullins, Jr. and William E. Mullins, both of Chester, Illinois; W. Stanley Barrett of Providence, R. I.; and Lawrence J. Rubenstein of Roxbury, Massachusetts.

The Marion Power Shovel Company, organized in 1884, manufactures the world's largest power excavating equipment for the mining and construction industries, and maintains a world-wide sales and distributor organization. Among its products are giant open-pit mining



John P. Courtright.

stripping shovels equipped with 45-cubic yard dippers, and walking draglines up to 35-cubic yards bucket capacity. The complete line of excavating equipment includes all types of shovels from 1/4-cubic

yard to 45-cubic yard capacity, and including the world's largest shovel mounted on two crawler tracks, a 10-cubic yard machine capable of loading a 50-ton capacity truck in three or four passes.

Mr. Courtright has been serving as executive vice president since last June, and in recent months as chief executive officer during the period of Mr. Gracely's absence. He joined the company in 1927, first working in the Chicago sales office and later becoming Chicago district sales manager before moving to Marion as sales manager in 1937. Six years later, he was advanced to vice president in charge of sales, and became a member of the board of directors in 1944.

He is a former president of the Power Crane and Shovel Association and currently is a member of the association's committees on mining machinery, construction machinery, and price stabilization. He is also a member of the Mining Machinery Advisory Committee of the U. S. Secretary of the Interior, and is a member of the board of governors of the American Mining Congress and vice chairman of its manufacturers division. Mr. Courtright is a graduate of Ohio State University, and took special work at Northwestern University.

Florida Firm Named As Warco Agent

The Vern Wheeler Equipment Co., Inc., Jacksonville, Fla., has been named distributor for the Warco line of motor graders manufactured by the W. A. Riddell Corp., Bucyrus, Ohio, reports A. Wm. McGraw, Jr., manager of sales.

The Vern Wheeler firm operates throughout the central section of Florida and southern Georgia. In addition to serving as exclusive distributor of the Warco 4D series of motor graders in this area, the firm also represents manufacturers of cranes, draglines, centrifugal pumps, concrete mixers, hoists, air compressors and tools, material handling equipment, aggregate bins, crushing equipment and practically all types of heavy equipment.

Vern Wheeler, who has been associated with the heavy equipment industry for over 30 years, is president of the company. Melvin Colegrove is in charge of parts and service.

Naming of the Vern Wheeler Co. as sales representative in the Georgia-Florida area is part of an overall expansion of the W. A. Riddell Corp. national sales and service program, according to Mr. McGraw.

D4 Caterpillar Diesel Described in Catalog

The many applications of the Caterpillar D4 Diesel Tractor are illustrated in a new catalog.

Subject of the catalog is a 43 draw-bar horsepower machine of value in agriculture, construction, logging, mining and oil field work. It has long-life tractor power for the average owner and is an economical, high work capacity unit for the large operator.

The catalog explains, part-by-part, how the tractor is built, what it's like and how it performs. Attachments and specifications are listed. Reports from actual D4 tractor owners on typical jobs are shown.

More than 30 photographs and many other illustrations are included in the 32-page booklet. Copies of the new D4 tractor catalog (Form 30291) may be obtained from Caterpillar Tractor Co., Peoria, Ill., and its dealers throughout the free world.



Above: Southeastern group of LeTourneau distributors who met in the Orange Court Hotel, at Orlando, Fla. Left to right they are: L. M. McCampbell, Dempster Brothers, Inc., Knoxville, Tenn.; William G. Harris, Florida Equipment Co. of Jacksonville, Fla.; Cloyd Richards, Lloyd Rager, Roy McCluskey, R. P. Nichols, Harry Powers, Cecil Walker, Statewide Equipment Co., Charleston, W. Va.; Miller G. Williams, Miller G. Williams Machinery Co., Montgomery, Ala.; Tilford Wilson, Wilson Machinery & Supply Co., Lexington, Ky.; John Greene, Mitchell Distributing Company, Inc., Raleigh, N. C.; Braxton Blalock, Jr., Blalock Machinery & Equipment Co., Atlanta.

LeTourneau Holds Meet for Southeast Distributors

LeTourneau distributors in the Southeast were among those visited earlier this year by five top men from the administrative offices of R. G. LeTourneau, Inc., Peoria, Ill., earthmoving equipment manufacturer. On this, the third such tour made in recent years, the group made two giant swings over the country on which they met with heads of all U. S. and Canadian LeTourneau distributors in a series of six sectional planning sessions.

The idea of these Planning Sessions was conceived by Roy E. McCluskey, LeTourneau vice president and general sales manager, to give the company first-hand knowledge of local conditions affecting Distributors' activities and opportunities.

Meetings handled on the first swing of 2600 miles were: Orlando, Fla. for the Southeast Distributors; Baltimore, Md. for those in the Northeast; and Chicago for those from the North Central States.

On the second swing of 2800 miles, the LeTourneau men met Distributors from:

the Northwest at Helena, Mont.; Southwest at Phoenix, Ariz.; and the South Central States at San Antonio, Texas.

The men from LeTourneau were Roy E. McCluskey, vice president and general sales manager; R. P. Nichols, domestic sales manager; H. R. Powers, eastern district sales manager; C. W. Richards, service manager; and Lloyd Rager, assistant advertising manager. These men discussed this year's sales, service and merchandising programs with distributor executives.

In addition, each meeting saw movie films and slides on LeTourneau electric control, high-speed, rubber-tired earthmoving equipment and its recent developments.

Active participation of all attending these meetings was obtained by giving each distributor opportunity to present his opinions on local trends and company progress, thus a representative and nationwide cross-section of factors affecting sales and service was procured by the company for its use in planning future operations.

\$3,000,000 La Porte Expansion Slated by Allis-Chalmers

A new building program costing more than \$3,000,000 will be started soon at the LaPorte, Ind., Works, of the tractor division of Allis-Chalmers Manufacturing Co. in connection with the production program of the M-8E2 Army cargo tractor.

In announcing the expansion, President W. A. Roberts said that a building for manufacturing and storage with 210,000 square feet will be built, and an addition will be made to the boiler house.

While a good share of the manufacturing of the Army vehicle is in a \$2,500,000 building constructed in 1951, some space had to be taken in other buildings at the LaPorte Works to install machine tools for production of the M-8E2. The new building will compensate for loss of this area and provide needed storage space.

New Closet Hanger

Jay R. Smith Manufacturing Co. of Union, N. J., announces a new line of improved combination chair carriers and fittings for wall hung closet installations. Called the Plumb Easy line, these new combination carriers simplify and save time in the installation and precision aligning of wall hung closets as now specified for most public installations. The Plumb Easy combination carrier and fitting offers full, quick, easy adjustment for perfect aligning and squaring of series or batteries of wall hung closets.

Plumb Easy combination carriers also feature fully adjustable outlet connection and off-center vent stack hub to allow additional clearance behind fixture where it is designed so that all weight on bowl is transferred to floor wall surfaces. Combination carriers and fittings are made to fit all makes of wall hung closet fixtures.

Equipment . . .

New Bulletin on Truck Hoists and Bodies

A new bulletin on Perfection Steel Body Co.'s Model 720, 725, 820, and 825 Hydraulic Hoists, for use with their series 100 and 200 bodies, is now ready for distribution. The manufacturer claims that body sway and weaving are reduced by two heavy lifting arms (actuated by the motion of the piston) that impart an upward lifting motion directly to the understructure of the body through two rigid, widely spaced lifting links. Body lift brackets are bolted to longitudinal sills, distributing power thrust to the entire understructure rather than to a small area of body floor.

Perfection offers this range of hoists and bodies in sizes and types for all classes of medium duty dump truck service. Operators and others interested may write for this bulletin directly to Perfection Steel Body Co., Galion, Ohio, or their distributors.

Cummins Elects Directors

Three additional members were elected to the board of directors of Cummins Engine Co., Inc., at Columbus, Ind. All of the Cummins organization, they are:

L. W. Beck, vice president—sales; D. J. Cummins, vice president—engineering; W. M. Harrison, vice president and treasurer.

At the same meeting, the following directors were re-elected: Cessie L. Cummins, honorary chairman; Irwin Miller, chairman; E. G. Crouch, C. R. Fox, R. E. Huthstainer, Hans L. Knudsen, V. E. McMullen, Mrs. Nettie S. Miller, and David B. Stern.

Universal Engineering Corp. Adds to its 880 Line

Universal Engineering Corp., division of Pettibone Mulliken Corp., Cedar Rapids, Iowa, announces an addition to its 880 Gravelmaster series portable crushing, screening and loading plants.

The 880 Senior "R" incorporates new engineering developments to increase capacity yet keep traveling weight within State Highway limitations. The plant features a 10-inch by 36-inch roller bearing jaw crusher, 30-inch diameter by 22-inch face star gear roller bearing roll crusher, and a 4-foot by 10-foot 2½ deck inclined gyrating screen.

The plant is driven by a single 115-125



Universal Engineering Corporation's 880 Senior "R" Gravelmaster.

horsepower power unit mounted on the plant, or by a separate side drive through a universal joint connection from separate truck mounted power.

The unit can be fed by shovel, truck, or dragline direct from pit to hopper or with optional 180-degree swivel feed conveyor. It also can be combined with a Universal 546P Primary for quarry operations.

New Representatives Named For Sub-Zero Products

Appointment of three new representatives is announced by Sub-Zero Products, Cincinnati 29, Ohio, Dixie Mill Supply Co., Tchoupitoulas and St. Joseph Street, New Orleans, will represent Sub-Zero in southern Louisiana, Alabama, and Mississippi.

George Keller Machinery Co., 1807 Elmwood Avenue, Buffalo, has been appointed to represent Sub-Zero in western New York state.

Rochester will be served by J. Walter McCloy, 414 Reynolds Arcade Bldg., who is associated with the Keller Co.

In eastern and northern Ohio, Sub-Zero will be represented by Cleveland Duplex Machinery Co., Inc., Penton Bldg., W. Third and Lakeside Avenues.

The appointment of the new representatives marks the latest step in the planned expansion of Sub-Zero to meet demand for their industrial chilling machines.

Williams Introduces New Adjustable Weld Connector

J. H. Williams & Co., Buffalo, N. Y., manufacturers and sole distributors of Saxe erection units used in assembling structural steel for welding, announces the development of a new adjustable clip known as K3A.

This new clip offers a quarter-inch adjustment which greatly facilitates the erection of welded-steel, multiple-story building construction. Column variations from a true straight condition, caused by tolerances which are permitted in mill-rolled columns, make the announcement of this adjustment feature welcome news to erectors of structural steel secured by welding.

The new adjustable K3A clip provides easy adjustment in structural steel assembly for the first time and it supplements the standard K3 connection long in use in the popular Saxe welded erection system. This system saves steel, produces fabrication economies and speeds erection.

Glass Discussed in Book

Glass, a 300-page book, edited by J. Home Dickson, discusses the nature, production and applications of glass to acquaint the technician, student and user with the most important aspects of the glass industry.

Each of the eight contributors is a specialist in the phase of the glass industry described by him.

The book is divided into four parts. The first part deals with the physics and chemistry of glass and explains the structure of glass and its chemical reactions with other substances. The second part is devoted to the technology of glass and glass articles. The third part deals with the most important applications of glass and the fourth part is an appendix on the spectral transmission of glass, including diagrams, and a combined index and glossary of the technical terminology of the industry.

It contains many illustrations and tables. It is published by the Chemical Publishing Co., Inc., 212 Fifth Ave., New York 10, N. Y., and is \$6.00 a copy.

New Catalog Pictures Moto-Bug Advancements



Low-cost material handling with Moto-Bugs is pictorially shown in a new four-page bulletin issued by the Kwik-Mix Co. of Port Washington, Wisc. Introduced about four years ago as a power wheelbarrow for construction work, the Moto-Bug since has been developed into an all-around materials handling device through easily interchanged front end attachments.

The colorful new catalog contains 25 action photographs that demonstrate Moto-Bug operation in construction, industry and maintenance work with the 10-cubic-foot hopper body; in shipping, building and manufacturing work with the 1500-pound platform body; in freight depots, factories and receiving docks with the 1000-pound hydraulic fork lift attachment. The Moto-Bug also can be used to spread sand, cinders and plow snow when fitted with the 5-foot scraper blade attachment.

Designed to meet many special handling problems, the Moto-Bug is equipped with full power forward and reverse through a directional transmission. The large steering wheel is connected directly to the dual rear wheel through a 3.6 to 1-gear reduction for effortless maneuvering. Its 33-inch width easily clears narrow aisles and doorways. Power is transmitted by V-belt and roller chain from the standard make 6-horsepower gasoline engine through an automotive type differential in the front axle for reliable 2-wheel drive.

Compact design has eliminated excessive weight in the Moto-Bug which permits work and travel with safety over old floors, light ramps, in elevators and box cars. Good traction for the Moto-Bug is assured because 75 per cent of load weight is centered over the front drive tires. With platform or hopper body, the unit can climb 20 per cent grades under full load.

Copies of the new bulletin and additional information may be obtained from any Kwik-Mix distributor or by writing direct to the Kwik-Mix Co. at Port Washington, Wisc.

Production at Peak for Detroit Diesel Division

Detroit Diesel Engine Division's production of 2-cycle Diesel engines has reached the 350,000 mark according to W. T. Crowe, general manager of the division.

Mr. Crowe said this figure marks a milestone in diesel engine production because prior to 1938 when Detroit Diesel entered the field the entire American diesel industry had produced only 60,000 engines.

With the dieselization of present markets continuing and new ones being developed a bright future for the industry is indicated, Mr. Crowe stated.

The finest masonry work starts with

Cumberland Masonry Cement

Castlewood (Virginia) High School—Smithey & Boynton, Roanoke, Va., Architects; Armstrong Constr. Co., Kingsport, Tenn., Contractor; Clinchfield Lumber & Supply Co., St. Paul, Va., Cement Supplier.



Today, more than ever, beauty is an important factor in every detail of new construction.

That's *one* reason why so many architects, builders and masons all over the South are choosing Cumberland Masonry Cement. Mortar made with Cumberland has a pleasing light color that stays bright and good looking throughout years of wear.

Beautiful buildings—Castlewood High School, Castlewood, Virginia, for example—always call for Cumberland Masonry Cement.

Economy is another reason why Cumberland is so popular. One sack of Cumberland Masonry Cement, mixed *only* with well-graded mason's sand and clean water, will lay approximately 200 brick with half-inch joints—800 brick per barrel.

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THE 10 BASIC REQUIREMENTS OF HIGH-QUALITY MASONRY CEMENT*

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**Cumberland gives you all 10!*



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Portland — High Early Strength — Air Entraining — Masonry

Any quantity of Cumberland Masonry Cement will be shipped in mixed carloads with other types of Cumberland Cement.

Equipment . . .

New 3½-S Dandie Mixer Announced by Kwik-Mix

A new, low cost 3½-S Dandie concrete mixer that incorporates all recent design improvement has been announced by the Kwik-Mix Co. of Port Washington, Wis. The new unit is a tilting type, end discharge mixer and complies with A. G. C. specifications for 3½ cubic foot mixed material capacity plus 10 per cent. The drum capacity for unmixed material is 5½ cubic feet.

According to the manufacturer, this redesigned Dandie mixer provides for high quality performance, ease of operation and long service life. It includes such features as multiple V-belt power transmission, improved design of the four mixing blades for faster cycles and more thoroughly mixed batches, an effortless



New 3½-S Dandie Concrete Mixer
announced by Kwik-Mix Co.

tilting device that stops and holds the mixing drum in any position and a push-down tow pole that balances the mixer for easy, one-man spotting, hitching and moving. A new locking device holds the tow pole securely in its socket, prevents machine swaying while towing and permits high speed travel.

Drum, drive shaft and wheels on the new mixer rotate on antifriction bearings. The sturdy undercarriage is all-welded heavy plate steel. Standard size pneumatic tires plus leaf spring mounting on the husky steel axle cushion all road shocks while transporting the mixer over roads. Power for operating the mixer is delivered by a standard make, single cylinder air cooled gasoline engine.

Overall dimensions are listed as 41 inch length, 65 inch height with a 43 inch shoveling height and 25 inch discharge height. The all-welded steel drum, 30½ inches deep and 30 inches wide, is supported on a strong box section yoke and is provided with a reinforcing ring at the large 18 inch diameter opening.

Maintenance problems have been simplified on the new Kwik-Mix tilting mixer. High pressure automotive type fittings are provided on all antifriction bearings. Only five Alemite fittings need to be serviced weekly. V-belts can be replaced quickly and easily. The engine house cover is easily removed for starting and servicing convenience.

Rock Bit Distributors For Mackintosh-Hemphill

The appointment of several new distributors for Midland Throwaway forged steel rock bits has been announced by G. W. Kneppshield, manager of Drill Bit and Tool Division of Mackintosh-Hemphill Co., Pittsburgh, Pa.

Among the distributors of these disposable rock bits for mining, quarrying construction and other heavy industrial operations are Allied Equipment, Inc., of Miami; Austin Powder Co. of Cleveland; Guyan Machinery Co., of Logan, W. Va.; Mine & Mill Supply Co. of Birmingham; Schroeder Brothers of Pittsburgh; and E. F. Marsh Co. of St. Louis, Mo.

Meili-Blumberg Acquires Hough Sweeper Business

The Meili-Blumberg Corp. of New Holstein, Wis., has completed negotiations with the Frank G. Hough Co. for acquisition of its line of tractor sweepers.

Meili-Blumberg will now distribute as well as continue the manufacture of all such sweepers under the M-B trademark. The 25 years of experience in manufacturing these sweepers, together with the closer dealer connection, should result in a more active sales and service organization and further improve public acceptance of M-B Sweepers.

The sweeper line will include pull-type sweepers, universal sweepers, and tractor mounted front end sweepers, for International, Case, Ford and other tractor makes. Engineering improvements and an expansion in plant facilities are now under way. No changes in the former distribution set-up are contemplated.

Neal Higgins Honored

Neal Higgins, sales consultant for the International Harvester Co., was recently awarded a certificate of service by the Department of Commerce for his work as Director of the Construction Machinery Division of the National Production Authority.

Mr. Higgins was one of 188 American business executives who were honored at a luncheon given by the Business Advisory Council of the Department of Commerce. All those honored had served without compensation since the Korean War began and were described by Council Chairman Robert T. Stevens as "unsung heroes" for their unstinting efforts in behalf of their country's defense production effort.

In presenting the certificates, Secretary of Commerce Charles Sawyer stated that "the willingness of you men to come to Washington at personal sacrifice to give your time, talent, and energy to help your country increase its strength is a tribute to the patriotism of American business."

Mr. Higgins has been an International Harvester sales department executive for many years with experience in the construction machinery industry. In Washington he helped to organize several N. P. A. divisions, including the Construction Machinery Division, which he later was named to direct. The division was responsible for expanding the production of construction machinery for the Defense Program and also for handling allocations of controlled materials.

Centrifugal Pump Film Strips Available from A. C.

Now available through Allis-Chalmers general machinery division district offices is the first in a series of a new educational service to industry in the form of three 35-mm. sound filmstrips on centrifugal pumps for showing before interested groups.

Titles of the three films, each with a running time of about 30 minutes, are "How and Why of Centrifugal Pumps," "Pump Maintenance," and "Covering All Angles." This latter describes the selection of a pump and gives information required to figure its installation.

The film "How and Why of Centrifugal Pumps" shows parts and nomenclature, theory of operation, measurement of characteristics, and interpretation of curves.

The "Pump Maintenance" film illustrates how to set up a centrifugal pump, starting procedure, lubrication, packing maintenance, mechanical seals, piping tips, and the keeping of operating records.

Requests for showings of any of these filmstrips should be made to the nearest Allis-Chalmers general machinery division district office.

Eric Plagwit Dies

Eric Plagwit, 76, recognized throughout the country as the dean of chimney engineers, died in a fall from the eighth floor of the Ruskin Apartments last month during the excitement of a six-alarm fire. He was packed and ready to leave for Berlin, Germany, to visit his brother who is ill.

Mr. Plagwit had been active in the engineering field for nearly 54 years, and had been head of the chimney division of The Rust Engineering Co. since 1924.

Blow Torches Operate on Leaded or Other Gas

The Clayton & Lambert Manufacturing Co., Louisville, Ky., manufacturer of heat tools, announces production of blow torches capable of using either leaded or non-leaded gas as fuel.

Allis-Chalmers Issues Bulletin on Squirrel-Cage Induction Motors

Construction features of Allis-Chalmers drip-proof and splash-proof squirrel-cage induction motors are described in a new bulletin released by the company.

The bulletin relates that the drip-proof motors (Type AW) are available in all ratings in NEMA Design B, which is suitable for the majority of cage motor applications. Many ratings are available in N.E.M.A. Design C, for applications requiring high locked-rotor torque and normal breakdown torque.

Special modifications, in addition to splash-proof construction (Type A.W.W.), include vertical mounting, flange mounting and multi-speed construction. These motors are ideal for all applications where atmospheric conditions, starting currents, and torques permit the use of drip or splash-proof squirrel-cage motors.

Motors described include ratings in 40 C rise continuous rated open drip-proof, and 50 C rise splash-proof construction, from 15 hp. at 450 r.p.m. to 800 hp. at 3600 r.p.m.

Copies of the bulletin, "Squirrel-Cage Induction Motors," 51B7693, are available upon request from Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

Dravo to Build Dock For T.V.A. Steam Plant

Coal transported in river barges direct from mines or river-rail terminals will feed the giant boilers of an \$88,000,000 generating plant being built along the Ohio River near Paducah, Ky., by the Tennessee Valley Authority. Named the Shawnee Steam Plant, it will furnish about half the electrical power for a \$500,000,000 Uranium-235 plant of the Atomic Energy Commission at Paducah.

Contracts for construction of a dock occupying some 2,180 feet along the river, and a coal barge unloading system, have been awarded by TVA to Dravo Corp., Pittsburgh.

The Contracting Division of Dravo will construct a total of 22 steel sheet pile cells for the dock. Two of them, 45 feet in diameter each, will serve as foundations for the coal unloading tower and surge hopper. Three 40-foot diameter cells at the upstream end of the harbor will be ice breakers. These serve to protect the fleet of barges in high water periods. Three other cells, 20 feet in diameter, are designed to support barge-shifter sheaves. The remaining 14 cells, each 16 feet in diameter, will be used to moor barges. The spacing of cells varies from 85 feet to 175 feet. A continuous walkway connects most of these cells.

When completed, the harbor will have facilities for 12 loaded and 12 empty 195-foot coal barges.

The barge unloader, to be fabricated by Dravo's Engineering Works Division, consists of a 93-foot-high structural steel tower, 29 feet square, to be mounted on one of the cells. A steel truss boom will extend out 54 feet over the water from the tower to carry a 9-ton capacity unloader bucket.

Coal is to be dumped into a hopper in the base of the tower from where it is carried by conveyor belt some 250 feet to a surge hopper which will be constructed on another 45-foot diameter cell. A conveyor belt then will move the fuel from the surge hopper 2,630 feet to the steam plant's coal crushing building.

A. S. C. E. Chooses San Francisco for 1953 Spring Convention

San Francisco has been selected for the 1953 Spring Convention of the American Society of Civil Engineers. It will be held March 2-7. Directly following a three day post-convention program of sessions will be held in Honolulu. This year's Spring convention was in New Orleans.

The 1952 summer convention will be held in Denver, June 16-20. The 1952 fall meeting will be in Chicago, coincident with the Sept. 3-13 convocation of engineers of all branches. The convocation, dated for the Centennial Year of the American Society of Civil Engineers, will be the greatest gathering of engineers in history. It is expected to attract 25,000, representing more than 50 American and foreign organizations.

Walter L. Huber, consulting engineer of San Francisco, has been nominated for president.

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QUICKEST PRIMING
FASTEST PUMPING
NEVER QUIT



PRIMING ACTION

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Gorman-Rupp Pumps have no equal in the Self-Priming Centrifugal Field. The **Simplest Pumps** built, streamlined inside where streamlining counts -- nothing to cause stoppages, nothing to reduce capacity.

In Gorman-Rupp Pumps the self-priming feature has reached its highest achievements.

Note the priming action illustrated above. The air and water are discharged through channel "A" into the chamber, where the air escapes from the water. The heavier air-free water is pulled downward again through channel "B" to the impeller where more air is entrained, discharged upward and released until the priming cycle is completed.

Gorman-Rupp pumps will pump more dirty water, more hours, with less fuel than any other self-priming pump. Being practically trouble-free they require a minimum of maintenance.



Contractors' Pump
Bulletin 8-CP-11

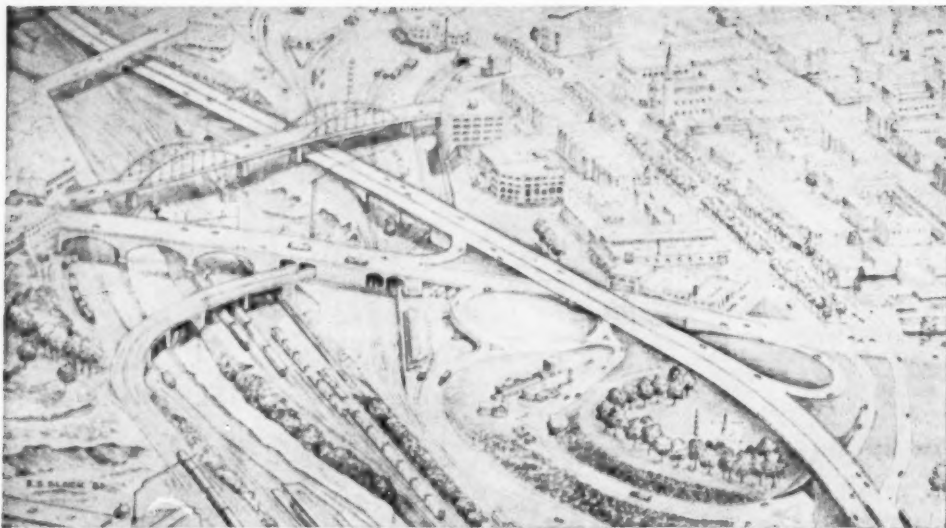
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Above—Aerial perspective of the North Avenue Interchange of the Proposed Jones Falls Expressway.

Northwest Express Route and Harbor Crossing Approach Reality at Baltimore

Two major projects in prospect in the Baltimore area are the Jones Falls expressway and the inner harbor crossing. Both are aimed at easing the tangled local traffic situation, the one by making a new modern thoroughfare to the north city limits and the other by providing a link in one of the proposed outer ring highways between the Washington

boulevard and the Pulaski Highway.

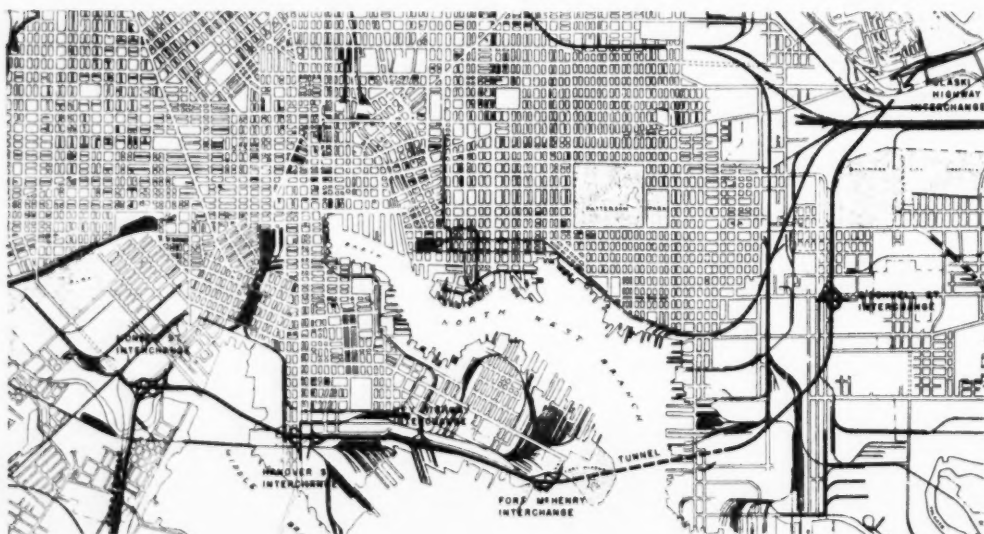
The Jones Falls project is estimated to cost \$17,027,684, of which \$10,000,000 would be financed by bond issue, \$3,959,184 from federal funds available in three years and \$3,068,500 from gasoline tax money. It will be six miles long and designed to carry 53,000 vehicles a day.

Route of the proposed new highway

would follow the Jones Falls valley from Chase Street, the end of the present covered Fallsway. It would be depressed along the east side of the Fallsway to Mt. Royal Avenue, passing under Biddle and Preston streets. From there it would be built over the stream bed and go under Calvert, St. Paul, Charles, Maryland Avenue and Howard Street bridges.

An interchange at North Avenue near McMechen Street would take the expressway upward to the level of Mt. Royal Terrace, which it would parallel

Below—Possible location of the state toll tunnel proposed across the Northwest Branch at Baltimore.



and then pass under the approach of the Twenty-Ninth Street bridge, skirting the eastern end of Druid Hill Park. Opposite the Mt. Vernon-Woodberry Mills, the roadway will cross Jones Falls and the railroad tracks and continue up the stream's valley under the Forty-First Street, Cold Spring Lane and Belvedere Avenue bridges to the city line at Mt. Washington.

Mt. Washington is the point where the Jones Falls expressway is expected to connect with the new Maryland state highway to York.

Traffic interchanges are presently proposed on the Jones Falls route at Chase Street, North Avenue, Twenty-Ninth Street bridge and Druid Lake Drive, Falls Road and Roland Avenue, Shirley Avenue and Cold Spring Lane and Belvedere Avenue. Cost of the grade separation structure is placed at \$12,282,567, with paving expected to cost \$1,001,391, retaining walls \$1,061,420.

Authorities point out that for much of the area, except in the congestion around the Pennsylvania Station, the route will cross over city-owned park land or undeveloped wooded land, causing minimum disturbance to industrial properties and removal of only fourteen homes. Right-of-way expenditure is set at \$1,145,500. The road would be designed for a speed of forty-five miles an hour, with no opposing or cross traffic, no pedestrians and no parking allowed.

The harbor crossing, according to the second tentative master transportation plan of the Planning Commission of Baltimore, would cost \$41,100,000, of which \$1,900,000 would be the cost of the right-of-way. It would extend from the Baltimore-Washington expressway at the proposed Monroe Street extension across the Middle and Northwest branches of the Patapsco River and on to the Pulaski Highway on the east.

Proposed as a toll project, the harbor crossing would involve a bridge over the Middle Branch, a roadway across the Locust Point peninsula and a tunnel under the Northwest Branch from Fort McHenry to Canton. The project would be financed by bonds issued under legislation which authorizes it as the fourth of a series of highway links. The other three are the Havre de Grace bridge over the Susquehanna, the Morgantown bridge over the Potomac, both completed, and the \$45,000,000 span now being finished across the Chesapeake Bay.

The State Roads Commission reports that construction contracts for the harbor crossing should be advertised next year. City and state officials have met several times, according to that agency, "in an effort to expedite preliminary study to the point where actual surveys and plans can be prepared."

Reservoir Cleaning Job to Cost \$500,000

The Tennessee Coal and Iron Division of United States Steel Co. is preparing to spend almost half a million dollars to remove silt deposits which are slowly filling the Camp Branch of its Bayview

Reservoir, announces A. B. Haswell, vice president in charge of engineering.

Plans are under way to remove approximately 570,000 cubic yards of sediment by means of suction dredge and to pipe it to fill nearby ravines, Mr. Haswell said.

Contracts for the work will be let in the near future.

Deposits resulting principally from erosion of the surrounding watershed have reached a point where they threaten to clog the intake portal at the Edgewater Pump Station. It is through this opening that water is taken from the reservoir for use at the division's various furnaces and steel manufacturing plants.

First noticed in 1932, the silt has been

gathering steadily and is now at a level within a few feet of the big intake tunnel, a concrete-lined passageway approximately six feet square.

Largely responsible for the accumulation of silt in the branch and in the reservoir proper was the practice, discontinued recently, of cultivating the ground on the upland levels above the reservoir and Village Creek, which flows into it. Absence of natural vegetation and loosening of topsoil by plowing permitted rains to wash dirt down the hillsides into the basin and its tributary streams, thus decreasing the water capacity.

Tennessee Coal and Iron uses more
(Continued on page 31)



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SMOKE STACKS • BREECHINGS • FLY ASH REMOVAL UNITS
ASME UNFIRED PRESSURE VESSELS

Oklahoma Awards 11 Roads, Rejects 11 Others

(Continued from page 41)

southwest of S. H. 37 in Tuttle southwest to Amber, 2.982 miles 7-10-inch stabilized rock base course, 22-24-foot double bituminous paving, 5-foot single bituminous shoulders, estimated cost, \$61,117; Haskell Lemon, Oklahoma City, \$66,363; disapproved;

Grady County—S-621(4) S. H. Pt. 2, S. H. 92 part of above project from S. H. 37 in Tuttle, extending southwest, 7.074 miles 26-32-foot roadbed, similar base and paving as on above location, estimated cost, \$198,408; Haskell Lemon, \$218,620; disapproved;

Pawnee County—SAP-683(3) Gr. S. H. 18 from Pawnee north 7.287 miles 36-foot roadbed, estimated cost, \$245,794; Oklahoma Construction Co., \$214,132;

Pawnee County—SAP-683(3) Surf., S. H. 18, 7.287 miles 8-inch soil sub-base, 10-inch rock base course, 24-foot double bituminous paving, 6-foot single bituminous shoulders on above location, estimated cost, \$256,868; Layman & Sons, Tulsa, \$215,431;

Garvin County—S-706(2) S. H. Pt. 1, S. H. 74, from Elmore City north, 6.396 miles 8-inch soil sub-base, 8-inch stabilized rock base course, 22-foot double bituminous paving, 5-foot single bituminous shoulders, estimated cost, \$181,101; Smith Brothers, Noble, \$180,619;

Garvin County—S-706(2) S. H. Pt. 2, S. H. 74 continuation of above project

from 6.396 miles north of Elmore City north to Maysville, 6.601 miles similar construction, estimated cost, \$191,810; Smith Brothers, \$191,739;

Cotton County—S-716(2) (SH), S. H. 65 from Temple south, 7.794 miles 6-inch soil sub-base, 8-inch asphaltic stabilized base course, 22-foot single bituminous paving, 5-foot single bituminous shoulders, estimated cost, \$219,340; Contracting Co., Dallas, Texas, \$226,840; disapproved;

Jackson County—U. S. 283 on Zinn avenue in Blair, .7 of a mile, 38-60-foot roadbed, 8-11-inch soil sub-base, 4-inch sand cushion, 7-inch portland cement paving 24-60-feet wide, 4-inch gravel shoulders, 7-feet wide, estimated cost, \$134,910; Oklahoma Paving Co., Oklahoma City, \$144,651; disapproved;

Grant County—SAP-801(2) Rdy., S. H. 11, from Medford east, 7.017 miles 36-foot roadbed, 8-inch soil sub-base, 8-inch stabilized asphaltic base course, 24-foot single bituminous paving, 6-foot bituminous shoulders, estimated cost, \$319,473; G. I. Construction Co., Meeker, \$331,928; disapproved;

Grant County—SAP-801(2) Br., S. H. 11 on above location, widening 128-foot I-beam bridge on Pole Cat creek from 20 to 28 feet, adding sidewalks, extending concrete culvert, installing 120-foot detour bridge, estimated cost, \$39,495; Brewer & McMichaels, Inc., Holdenville, \$41,995; disapproved;

Dewey-Roger Mills Counties—SAP-1009(1) S. H. Rdy., S. H. 47 from S. H. 34 west, 4.956 miles 32-foot roadbed, 5 double

and triple box reinforced concrete culverts, estimated cost, \$225,073; Pool Construction Co., Shawnee, \$228,696;

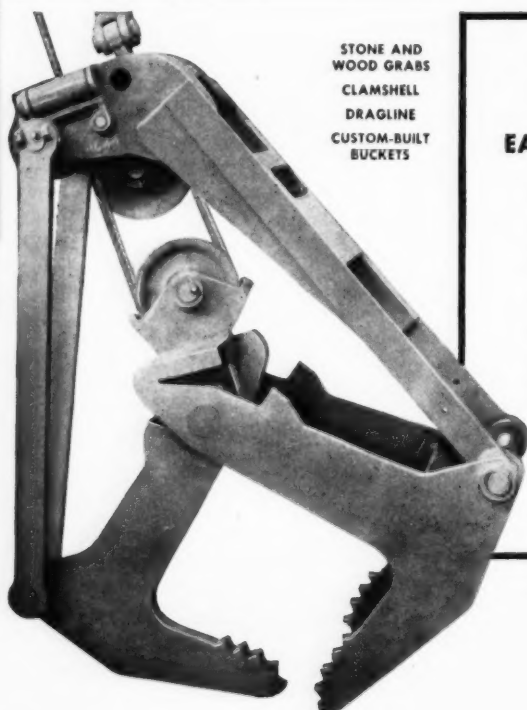
Dewey-Roger Mills Counties—SAP-1009(1) S. H. Surf., S. H. 47 on above location, 4.928 miles 8-10-inch soil sub-base, 6-inch asphaltic stabilized base course, 22-foot single bituminous paving, 5-foot single bituminous shoulders, estimated cost, \$179,154; Broce Construction Co., Woodward, \$187,363; disapproved;

Love County—SAP-1022(2) Rdy., S. H. 77 from S. H. 199 east of Marietta extending north, 7.019 miles 32-foot roadbed, double box reinforced concrete culvert, estimated cost, \$117,991; Cohenour Construction Co., Ardmore, \$117,919;

Love County—SAP-1022(2) Surf., S. H. 77 on above project, 7.015 miles 10-inch soil sub-base, 6-inch asphaltic stabilized base course, 24-foot single bituminous paving, 4-foot single bituminous paved shoulders, estimated cost, \$193,721; Smith Brothers, \$201,013; disapproved;

Greer County—SAP-1084(1), S. H. 44-B from one-half mile north of Altus reservoir dam, extending northwest, 1.491 miles, 28-foot roadbed, 9-12-inch soil sub-base, 7-inch stabilized rock base course, 22-foot double bituminous paving, 3-foot primed shoulders, estimated cost, \$253,576; W. H. Blackburn Construction Co., Oklahoma City, \$251,538.

Jack L. Massie, Newport News contractor, has moved his office to new and larger quarters at 1010 Jefferson Avenue (extended), Hilton Village, Va.



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descriptive bulletins.

THE WELLMAN ENGINEERING COMPANY
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Reservoir Cleaning Job

(Continued from page 49)

than four hundred million gallons of water per day—over 10 times as much as the domestic consumption of the entire City of Birmingham. Fifty million gallons a day is drawn from the Bayview Reservoir, and 25 million is purchased from the Birmingham Industrial Water System, with the remaining 82 per cent being made up by repeated recirculation of used water. Therefore, it is vitally important to the operation of the plants that the Bayview supply be maintained.

In order to retard the flow of sediment into the basin, the division several years ago removed from cultivation most of the property it owns in the Bayview watershed, and began a tree planting program, in which it has set out more than two million pine seedlings. While the extensive forestry program has been highly successful in anchoring topsoil, the total storage capacity of the reservoir is still being reduced by more than one and a half per cent a year.

However, due to the measures being presently taken, it is not expected that major section will be required during the next 15 or 20 years.

Bayview Dam was built in 1909, to serve the needs of the then rapidly expanding Tennessee Coal Iron plants. Four hundred-seven feet long, it creates a lake which covers 530 acres and has a capacity of more than three billion gallons of water.

Half a million more tons of steel per year, by the latter part of 1952 or early part of 1953, is the promise of Arthur V. Wiebel, president of the Tennessee Coal, Iron and Railroad Co.

T. C. I. is now engaged in an expansion program designed to raise the company's annual ingot capacity from 2,850,000 tons to 3,350,000 tons.

When the two new furnaces have been completed and put into operation, the other furnaces already in use at the Fairfield plant will be rebuilt two at a time to increase their capacity from 190 to 210 tons per heat.

At the sheet mill, where a third continuous galvanizing line is being installed to increase the output of galvanized sheets, work has been started to extend the galvanizing building by 600 feet and the building which houses the annealing furnaces is being made 200 feet longer. The sheet mill warehouse is being enlarged by more than 24,000 square feet to provide for storage and loading for shipment of greater tonnages of finished products.

The building program at Fairfield is the major phase of the general expansion project which will affect most of the operations of the company, says President Arthur V. Wiebel. In order to provide sufficient hot metal to keep the expanded steel making facilities operating at top capacity, the Tennessee Company plans to make use of large tonnages of high grade iron ore from Venezuela to supplement the relatively low grade iron ore taken from the company's own mines on Red Mountain.

The South American ore will be sup-

plied by the Orinoco Mining Company, a new subsidiary of the United States Steel Corporation, and will come to TCI through its recently-purchased terminal site at Mobile.

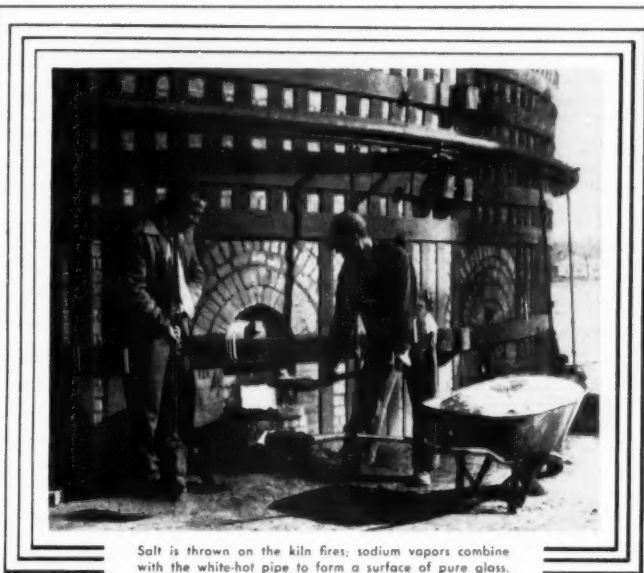
Additional storage silos and blending facilities are being built at the Ore Conditioning and Sintering Plant at Wrennah, so that the foreign and local ores can be mixed proportionately to provide raw materials of the proper analysis for the blast furnaces.

"This is just another step in a process of building, remodeling and expanding, which has been almost continuous since the Tennessee Company came to Birmingham, more than 65 years ago," Mr.

Wiebel said. "We are always looking for better means of serving the South and the nation, particularly in times of emergency such as this."

Hewitt-Robins Opens Kansas City Office

Hewitt-Robins, Inc., manufacturer of conveying and vibrating machinery and industrial rubber products has opened an additional office in the Porter Building, 406 W. Thirty-fourth Street, Kansas City, Mo., it was announced by Lester D. Bigelow, vice president in charge of the central sales division.



Salt is thrown on the kiln fires; sodium vapors combine with the white-hot pipe to form a surface of pure glass.

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Important to every length of Dickey clay pipe is its all over salt glaze. This type of glaze is not a coating, but a change in the chemical nature of the pipe surface itself. A hard-wearing surface of heavy glass is created—brighter, smoother, and self-scouring. A pipe can be salt-glazed only after complete vitrification; it is visual proof to you of an exceptionally hard-burned product. Specify Dickey sanitary clay pipe; it is fully vitrified and salt-glazed.

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Kansas City, Kans., San Antonio, Tex.,
Texarkana, Tex.-Ark.

Thirteen West Virginia Jobs Bid at \$1,289,788

(Continued from page 30)

Logan County—State Projects 5028 and 5168 (Pl.), 11 miles of surface treatment, Man-Pardee Road (Sec. 16), Standard Asphalt & Tar Co., Charleston, low bidder, \$48,675; John S. Gillespie, Inc., \$53,581; Harry Hatfield & Co., \$56,292; Abbott Construction Co., \$57,001.

Marion County—State Project 5737, 7.9 miles surface treatment and road mix surface, Mannington-Harrison County Line (Flaggy Meadows) Road (Sec. 11), Feather Construction Corp., Morgantown, low bidder, \$33,487; F. F. Earp, \$33,820; Allen Construction Co., \$34,202.

Nicholas County—State Project 159-A and C, 11.4 miles of road mix surface, Powell Mountain-Braxton County Line Road (U. S. 19), Standard Asphalt & Tar Co., Charleston, \$92,310; Keeley Construction Co., \$103,267; Osborne Construction Co., \$104,137.

Raleigh County—State Project 5295, 10.4 miles surface treatment, Pemberton-Bosoco Road (Sec. 29), Standard Asphalt & Tar Co., Charleston, low bidder, \$24,611; A. A. and D. M. Bostic, \$27,792; Adams & Tate Construction Co., \$29,526; Brown & Wright, \$32,326; Abbot Construction Co., \$31,538.

Wetzel County—State Project 3770, 9.3 miles surface treatment, Proctor-Marshall County Line Road (W. Va. 89), Tri-State Asphalt Corp., Wheeling, \$18,017; Allen Construction Co., \$21,214.

Wood County—Federal Aid Project F-518 (18), 4.279 miles grading, draining, asphaltic concrete base, bottom, wearing course and guard rail, Salusbury-Limestone Hill Road (U. S. 21), Andersons', Inc., Charleston, low bidder, \$396,605; Standard Asphalt & Tar Co., \$423,519.

Kentucky Low Bids Total \$1,846,557 for Highways

(Continued from page 38)

Graves-Calloway Counties—SP Group 22 (1952), 9.274 miles bituminous surface class I, R. B. Tyler Co., Louisville, Ky., \$106,284.

Hickman County—SP Group 23 (1952), 9.396 miles bituminous surface class I, R. B. Tyler Co., Louisville, Ky., \$69,817.

Knox County—SP Group 25 (1952), 9.013 miles bituminous surface class C-1 and A-2 seal, Independent Contracting Co., Louisville, Ky., \$52,247.

Perry County—SP Group 28 (1952), 10.800 miles bituminous surface class C-1 and A-2 seal, Independent Contracting Co., Louisville, Ky., \$68,683.

Floyd County—SP Group 29 (1952), 6.185 miles bituminous surface class I (using sandstone aggregate), Kentucky Road Oiling Co., Frankfort, Ky., \$37,396.

Fleming-Mason Counties—SP Group 30 (1952), 22.135 miles bituminous concrete base widening and bituminous surface class I, Hinkle Contracting Co., Paris, Ky., and Middle States Bituminous Corp., Ashland, Ky., \$150,043.

Marshall County—SP Group 32 (1952), 20.143 miles bituminous concrete base

widening and bituminous surface class I, Middle West Roads Co., Noblesville, Ky., \$222,969.

Gallatin-Carroll Counties—MP Group 1 (1952), 9.231 miles bituminous surface class A-2, L. E. Bergin, Covington, Ky., \$6,685.

Campbell - Grant - Boone - Pendleton Counties—MP Group 2 (1952), 30.993 miles bituminous surface class A-2 (using crushed gravel aggregate), L. E. Bergin, Covington, Ky., \$31,225.

Woodford-Jessamine-Fayette Counties—MP Group 3 (1952), 28.691 miles rock asphalt surface, Carey Construction Co., Lexington, Ky., \$46,341.

Pike-Floyd-Letcher-Knot Counties—MP Group 4 (1952), 39.118 miles bituminous surface class A-2 (using slag aggregate), Adams Construction Corp., Paintsville, Ky., \$46,139.

Ohio County—MP Group 5 (1952), 7.209 miles rock asphalt surface, State Contracting & Stone Co., Hartford, Ky., \$17,425.

Henderson County—RH Group 2 (1952), 1.56 miles bituminous surface class F, Corum & Edwards, Madisonville, Ky., \$9,032.

Jefferson County—RH Group 3 (1952), 1.063 miles bituminous surface class I, Allen Co., Inc., Winchester, Ky., \$12,269.

Franklin County—RS 37-585, 2.711 miles reconstruction and traffic bound limestone, Fuller-Davies Co., Frankfort, Ky., \$32,718.

Harlan County—RS 48-18, Wilhoit-White Star Road, repairs to suspension



Dredging—Construction Engineering

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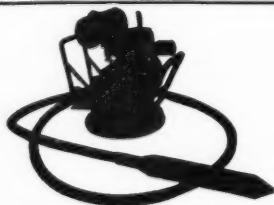
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bridge, C. D. Juett, Winchester, Ky., \$26,655;

Harlan County—RS 48-908, Bobs Creek Road, .215 of a mile reconstruction and local bank or creek gravel (using 10 inch steel piling), C. D. Juett, Winchester, Ky., \$42,825;

Hickman County—RS 53-509, Clinton Ky. 288 (Alton Bug (1))—Carlisle C. Line (The Spragg (2)) Road, 3.270 miles reconstruction and local bank or creek gravel, Davidson & Coker, Mayfield, Ky., \$30,671;

Union County—RS (113-627) (113-887), Cat Alley rd. and Humphrey rd., .151 of a mile culverts and traffic bound river gravel approaches, H. B. Stanley, Ltd., Beaver Dam, Ky., \$23,736;

Wolfe County—RS 119-163, Campton-Gosneyville-Valeria Road, 2.317 miles reconstruction and traffic bound limestone, Licking River Limestone Co., West Liberty, Ky., \$32,675.

Construction Starts on \$6,500,000 Elevator

The first piling was driven recently for the \$6,500,000 addition to the public grain elevator. Harry S. Hardin, Sr., Vice-President of the Board of Commissioners, drove the first pile while members of the board and other civic leaders, including Mayor Morrison, looked on.

Contracts were let in February for the project. The Fegles Construction Co. of Minneapolis, Minn., received a \$5,635,000 award, the largest single contract the board has ever made with a private firm

for the construction of a port facility. A contract with Blount Brothers Construction Co. is for \$791,000, and calls for construction of foundations for the grain storage structure, head house, car dumpers, and appurtenant structures. The contract with Fegles includes all other work.

The new elevator will approximately double the present capacity of 2,622,000 bushels. The addition of car unloading facilities and an extra marine leg will also double the ability of the elevator to unload and receive grain from rail cars and barges.

The marine leg now situated at Stuyvesant Docks, but not in use, will be moved to the new elevator and will be installed 500 feet above the present marine leg. A belt conveyor gallery will be installed to handle grain from the new and existing marine legs to the new elevator, giving the elevator an additional belt for shipping purposes.

The new elevator will have 81 storage bins, each 20 feet in diameter, and 85 feet high. These bins will be the same height as the present ones but the diameter is greater by four feet.

The new elevator will be provided with two car receiving lofters and two marine leg receiving lofters. There will be four shipping lofters and another two of these will be installed in the future. The new workhouse will also be equipped with the necessary gannets, scales and spouting.

Shipping facilities of the new elevator will tie into the existing shipping facilities. There will be five basement conveyors for shipping and transferring grain.

Space will be available for three additional basement conveyors when they are required. There will be five distributing belts with space available for an additional one. All lofters and conveyors will have a capacity of 30,000 bushels an hour each.

Weight Curbs Discussed

(Continued on page 5)

are the most liberal in the country.

The discussion was prefaced with an address by George N. Lewis, Jr., director of the Maryland State Roads Commission's traffic division, who also termed Maryland's laws "exceedingly liberal" and said only five other states permit weights of the 22,400-pound magnitude for single axles, with no other state as liberal on tandem axles.

Roads Load-Zoned

The Texas Highway Commission has load-zoned five farm-to-market roads to limits less than the maximum fixed by law.

An engineering and traffic investigation on the five roads by the highway department showed a need for restricted loading, according to the Commission announcement.

All will be limited to a 40,000-pound gross or 12,000-pound axle loading.

The roads load-zoned included the following: FM 617 in Haskell County from State Highway 283 to Weinert, FM 518 in Brazoria County from Harris County line to FM 1128 and from Pearland to the Galveston County line.



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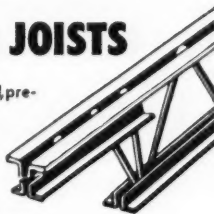
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Producers of Steel
for Industry and Construction

St. Louis, Mo.

Baltimore-Washington Road

(Continued from page 48)

bridge over Patapsco River, \$675,912, McLean Contracting Co., Baltimore; completed;

Project AA-368-2-358, 1.153 miles main road, Patapsco River to Hammonds Ferry Road, including grade separation structures at Nursery Road and Hammonds Ferry Road, \$1,579,011, Wilmoth Paving Co.; completed;

Project AA-368-3-358, 1.535 miles main road, Hammonds Ferry Road to Winter-son Road, including grade separation structures at Nursery Road, west, \$1,076,061, Rea Construction Co.; completed;

Project AA-368-4-358, .654 mile main road and 1.468 miles spur, the interchange area at the Friendship International Airport connection, including construction of three interchange grade separation structures, total length 2.122 miles, \$1,600,300, C. J. Langenfelder & Son, Inc.; completed;

Project AA-392-1-358, .582 mile spur, connection from expressway to Friendship airport boundary, \$274,392, Wilmoth Paving Co.; completed;

Project AA-392-3-315, 1.015 miles spur, connection for Friendship airport boundary to administration building, including grade separation structure at Fort Meade Road, \$519,748, Williams Construction Co.; completed;

Project AA-368-6-358, bridge over Stony Run and Pennsylvania Railroad, \$577,766; Brooklyn Engineering Corp.; completed;

Project AA-368-6-358, 1.241 miles main road, Stony Run bridge to Hanover Road, including grade separation structures at Ridge Road, \$1,013,918, Carrozza-Hamill & Co.; completed;

Project AA-368-14-315, 1.497 mile spur, interchange at Nursery Road, consisting of dual steel bridges over expressway to connect with routes 168 and 301, \$271,586, Smith, DeCourse & Christliff; practically completed;

Project AA-368-13, 1.662 mile spur, connections to U. S. Route 301 and Maryland 168, includes divided highway consisting

of two 24-foot lanes from Route 301 to Route 168 and construction of ramp roads necessary to complete interchange, \$1,477,209; Nello L. Teer Co., about one half completed;

Project AA-368-7-358, 1.375 miles main road, Hanover Road to Dorsey intersection area, including bridge grade separation structures at Hanover Road, and reinforced concrete culvert at Piney Run, \$1,152,248; Nello L. Teer Co.; about three-fifths completed;

Project AA-368-8-358, .4 mile main road, 1.135 mile spur, Dorsey intersection area, including .714 mile of connecting ramps and .421 mile of Dorsey Road connections, as well as grade separation structures at Dorsey Road, \$546,624; Nello L. Teer Co., over one-quarter finished;

Project AA-368-9-358, 1.909 miles of divided highway and .747 mile of service road, Dorsey intersection area to Jessup interchange area, \$888,960; Williams Construction Co.; more than two-thirds completed;

Project AA-368-10-358, .539 mile of divided highway plus 2.891 miles interchange roads, Jessup interchange area, \$865,719, Nello L. Teer Co., over one-third finished;

Project AA-368-18-358, steel beam bridge to carry expressway over Jessup Road, (State Route 175), \$301,501; Frank Pecora Construction Co., approaching one-fifth finished. (S.A.L.)

York River Bridge

(Continued from page 37)

structure were fabricated at the Roanoke branch of the American Bridge division of the United States Steel Corp. At the time the project was started that plant was known as the Virginia Bridge Co.

Contractors for other parts of the project were Massman Construction Co. and Kansas City Bridge Co., for the substructure; W. H. Scott, of Franklin, Va., for the approach roads; Thorington Construction Co., of Richmond, for the toll plaza and administration building, and Taller and Cooper, Inc., of Brooklyn, N. Y., for the toll collecting facilities. W. F. Magann Corp., of Portsmouth, Va., was the concrete subcontractor. General Electric Corp., furnished the electric motors for operation of the swing spans. Richardson-Wayland Electrical Co., of Roanoke, did electrical work. The giant caissons are built by the Newport News Shipbuilding and Dry Dock Co. for the Massman Construction-Kansas City Bridge company combination and towed 45 miles to the construction site.

Unique pipe towers were developed to guide the caissons as they were sunk. These were 20 by 20 feet and 112 feet high. The caissons were floated into the "U" formed by three of the towers and then pinned into position by a fourth set afterwards. American Revolvers were used in this heavy work.

The large caissons had six 12-foot open dredge wells. When they were sunk, steel cofferdams were constructed to eight feet above mean tide. Concrete was then poured around the structural steel and diaphragms to complete the caisson

structure. These were then capped at 40 feet below the water to support the hollow pier shafts.

Engineers for the George P. Coleman memorial bridge were Parsons, Brinckerhoff, Hall and MacDonald, of New York, acting for the Virginia Department of Highways. C. S. Mullen is chief engineer of the department; W. R. Glidden, bridge engineer, and T. F. Loughborough, construction engineer.

John Penry was erection superintendent for the American Bridge Division. Mr. Penry has been building bridges and buildings for United States Steel Corp. for seventeen years. He has worked in practically every state in the South. From Yorktown he will go to Tuscaloosa, Ala., where he will construct a new railroad bridge over the Warrior River. Coincidentally, his daughter will resume studies there at the same school in which she started in the first grade nine years ago. (S.A.L.)

Florida Highway Bids Total \$4,907,000

(Continued from page 34)

work consists of grading, paving, storm sewer and incidental items; Doyle Pope, Quincy, \$56,000;

Okaloosa—State Project, Job No. 5704-110, Road No. 85, from Third Street in Fort Walton south on Chestnut Avenue approximately .353 of a mile; work consists of grading, paving, storm sewer and incidental items; Smith Engineering & Construction Co., Pensacola, \$49,538;

Santa Rosa—State Project, Job No. 5856-150, Road No. S-191, from Road No. 30 to Oriole Beach; work consists of grading, paving and incidental items; Job No. 5857-150; from Road No. 30 to Natashala Beach; work consists of grading, paving, drainage structures and incidental items; Smith Engineering & Construction Co., Pensacola, \$174,638;

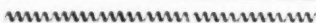
Clay—State Project, Job No. 7153-150, Road No. S-218, from Road No. 15 to Russell Station; work consists of paving, drainage structures and incidental items; L. L. Hall Construction Co., Orange Park, \$108,320;

Dade—State Project, Job No. 8753-150, Road No. S-25-A, from Road No. 25 near Road No. 819 east to Road No. 9; work consists of reworking existing base, paving and incidental items; C. T. Stockton, Inc., Miami, \$150,505;

Martin—State Project, Job No. 8902-102, Road No. 706, from Palm Beach County line northwest approximately 3.36 miles; work consists of grading and incidental items; H. E. Wolfe Construction Co., St. Augustine, \$91,600;

Monroe—State Project, Job No. 9053-151, Road No. S-940, from a point approximately 1.5 miles northwest of Road No. 5 on Big Pine Key northwest approximately 2 miles; work consists of paving and incidental items; Job No. 9054-150, Road No. S-939, from Road No. 5, via Pirates Cove to Road No. 939; R. H. Wright and Son, Fort Lauderdale, \$59,369;

Duval—Federal Aid Project No. U-503 (1), Jobs Nos. 7204-276 and 7204-175, State (Continued on page 36)



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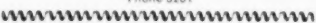
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Florida Highway Bids Total \$4,907,000

(Continued from page 54)

Roads Nos. 10-A and 115, between Main Street in Jacksonville and the west end of Arlington Bridge; work consists of grading; stabilizing; paving; constructing three concrete and steel overpass structures; one concrete box culvert of bridge length, small drainage structures and incidental items; Duval Engineering & Contracting Co., Jacksonville, \$1,487,278;

Dixie—Federal Aid Project No. F-016-2(6), Job No. 3001-206, State Road No. 55, between a point approximately 2.5 miles northwest of Cross City and a point approximately 11 miles northwest of Cross City; work consists of clearing and grubbing, grading, construction of five bridges, small drainage structures and incidental items; H. E. Wolfe Construction Co., St. Augustine, \$539,175.

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BALTIMORE

MARYLAND

April Contracts Total \$462,394,000

(Continued from page 20)

month, the totals for these were \$98,391,000, \$4,270,000, \$519,000 and \$739,000, respectively.

The threat of further inflation and subsequent uncertainties which have complicated the construction picture since start of federal controls crystallized into the steel workers' strike and shut-down of most of the steel-making capacity of the country. Cost of the labor demands if imposed on the industry is estimated at \$12 per ton of steel products shipped. Rises in costs would be inevitable.

Higher prices would be coupled with the new policy established a few weeks ago by the Wage Stabilization Board, which generally authorized increases up to fifteen cents an hour over the ten per cent rise it allowed under an older formula, with health and welfare provisions included in the new formula as well.

Early in April, when the steelworkers' walk-out was just beginning to cloud the construction horizon, the American Appraisal Co. announced that its cost index for the first quarter of the year has reached a new high of 544. This represented an increase of nineteen points since March of 1951 and a five-point rise for the first quarter of this year. The latter was attributed almost entirely to increases in labor prices.

The Housing and Home Finance Agency has issued a new regulation—called P. and A. Order 1—which is described as establishing formal procedures by which applicants can ask reconsideration, or appeals of decisions under the controlled materials plan. The new regulation pertains to residential construction.

Some idea of the so-called defense housing program was given at the middle of April by the Housing and Home Finance Agency. Applications for erection of 61,662 units, or ninety-four per

cent of the 65,565 units programmed in 114 of the 158 critical areas had been approved. Of that number, 12,618 units had been placed under construction and 1,666 of them had been completed.

A new record was set in April for work throughout the country, according to a joint report of the building materials division of the Department of Commerce and the Bureau of Labor Statistics of the Department of Labor.

Construction outlays, those agencies said, rose seasonally to a record of nearly \$2,500,000,000, or eight per cent above the March figure. Private expenditures were estimated at five per cent up and public outlays, about twelve per cent higher.

The value of new construction during the first four months throughout the country was placed above \$6,100,000,000, or about five per cent below the corresponding period of last year. Public expenditures were placed at \$2,800,000,000, or a rise of twenty-five per cent.

The seasonal upturn was noted in nearly all types of construction, the exception being private industrial expansion, which reached a peak about one-third higher than a year ago.

WEST VIRGINIA PROJECTS

(Continued from page 32)

In Huntington area, \$1,500,000.

MCDOWELL COUNTY—Oiga Coal Co. plans \$3,000,000 coal cleaning plant.

MONTGOMERY—National Guard Bureau, Washington, D. C., plans for national guard armory, \$150,000.

MOOREFIELD—Hardy County Light & Power Association has REA loan of \$145,000 for 49 miles.

MORGANTOWN—West Virginia University plans \$834,700 school of music.

NEW HAVEN—Home Telephone Co. plans \$100,000 central office.

NITRO—City plans 50-bed hospital, \$500,000.

SPENCER—Spencer Manufacturing Co. plans expansion, \$75,000.

TPSHUR POINT—Union Fuel Gas Co. plans \$2,000,000 pumping station and 6,000 acre gas storage field.

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NEWPORT NEWS, VIRGINIA

PUBLIC BUILDING

(City, County, State, Federal; Hospitals)

	April, 1952		Contracts Awarded 1952
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$2,379,000	\$4,265,000	\$9,339,000
Ark.	6,719,000	535,000	19,006,000
D. C.	971,000	16,095,000	10,190,000
Fla.	4,990,000	213,725,000	17,487,000
Ga.	5,525,000	4,913,000	20,603,000
Ky.	1,675,000	1,195,000	23,190,000
La.	5,675,000	7,539,000	13,665,000
Md.	23,661,000	9,179,000	47,294,000
Miss.	989,000	2,655,000	9,696,000
Mo.	2,898,000	7,665,000	6,492,000
N. C.	3,589,000	6,595,000	16,240,000
Okla.	2,424,000	1,110,000	12,718,000
S. C.	1,891,000	1,730,000	9,806,000
Tenn.	4,013,000	2,130,000	9,234,000
Tex.	23,161,000	29,710,000	81,604,000
Va.	10,675,000	11,711,000	29,142,000
W. Va.	228,000	1,645,000	300,000
TOTAL	\$100,041,000	\$321,197,000	\$336,645,000

PRIVATE BUILDING

(Assembly, Commercial, Residential, Office)

	April, 1952		Contracts Awarded 1952
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$17,001,000	\$2,805,000	\$29,396,000
Ark.		30,000	843,000
D. C.		1,650,000	5,319,000
Fla.	11,928,000	6,162,000	45,628,000
Ga.	5,951,000	2,850,000	22,297,000
Ky.	11,163,000	3,825,000	4,384,000
La.	8,230,000	1,770,000	31,121,000
Md.	1,960,000	460,000	36,797,000
Miss.	915,000		5,867,000
Mo.	1,544,000	753,000	10,434,000
N. C.	22,000		191,000
Okla.	1,486,000	1,100,000	8,417,000
S. C.	976,000	6,780,000	23,828,000
Tenn.	13,800,000	22,440,000	35,352,000
Tex.	11,098,000	5,530,000	35,860,000
Va.		75,000	
W. Va.			
TOTAL	\$84,124,000	\$56,090,000	\$307,300,000

PUBLIC ENGINEERING

(Dams, Drainage, Waterworks, Sewers, etc.)

	April, 1952		Contracts Awarded 1952
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$1,058,000	\$2,195,000	\$2,472,000
Ark.	1,160,000	1,525,000	1,510,000
D. C.		40,000	1,671,000
Fla.	11,442,000	7,855,000	59,008,000
Ga.	2,872,000	10,050,000	7,281,000
Ky.	3,357,000	15,882,000	4,117,000
La.	6,876,000	8,575,000	14,241,000
Md.	986,000	3,140,000	4,781,000
Miss.	2,758,000	3,855,000	9,701,000
Mo.	959,000	2,865,000	3,848,000
N. C.	2,447,000	1,650,000	13,801,000
Okla.	4,337,000	3,965,000	15,637,000
S. C.	2,230,000	2,885,000	9,173,000
Tenn.	1,273,000	895,000	14,249,000
Tex.	30,881,000	28,168,000	82,409,000
Va.	5,314,000	2,870,000	17,168,000
W. Va.		220,000	60,000
TOTAL	\$78,170,000	\$86,303,000	\$261,627,000

INDUSTRIAL

	April, 1952		Contracts Awarded 1952
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$54,556,000	\$1,540,000	\$39,370,000
Ark.	3,500,000	33,650,000	4,700,000
D. C.			9,400,000
Fla.	20,635,000	256,200,000	44,483,000
Ga.	26,064,000	6,643,000	32,690,000
Ky.	800,000		2,100,000
La.	160,000	34,290,000	86,611,000
Md.	645,000	62,580,000	66,197,000
Miss.	730,000	3,925,000	22,146,000
Mo.		200,000	4,539,000
N. C.	3,646,000	1,000,000	35,422,000
Okla.	100,000	19,750,000	2,300,000
S. C.	1,872,000	300,000	5,822,000
Tenn.	3,019,000	10,471,000	7,827,000
Tex.	12,641,000	281,818,000	119,833,000
Va.		6,392,000	1,604,000
W. Va.	1,000,000	9,613,000	33,382,000
TOTAL	\$129,468,000	\$726,772,000	\$558,165,000

ROADS, STREETS, BRIDGES

	April, 1952		Contracts Awarded 1952
	Contracts Awarded	Contracts to be Awarded	
Ala.	\$1,807,000	\$ 734,000	\$3,340,000
Ark.	1,819,000	25,180,000	4,422,000
D. C.			
Fla.	9,001,000	1,140,000	19,524,000
Ga.	1,879,000		8,709,000
Ky.	5,230,000	10,580,000	9,790,000
La.	4,113,000	7,760,000	12,471,000
Md.	3,662,000	2,430,000	7,997,000
Miss.	953,000	720,000	1,950,000
Mo.	2,950,000	3,620,000	18,230,000
N. C.	6,090,000	3,140,000	14,731,000
Okla.	3,013,000	4,140,000	12,174,000
S. C.	4,591,000	1,060,000	10,450,000
Tenn.	5,868,000	3,360,000	9,937,000
Tex.	12,988,000	6,070,000	43,645,000
Va.	1,912,000	31,262,000	8,548,000
W. Va.	1,713,000	98,180,000	3,854,000
TOTAL	\$70,591,000	\$199,396,000	\$185,760,000

Baltimore Engineers Make Bay Boat Trip

The Engineers Club of Baltimore has again made a trip down the Chesapeake Bay to inspect the new \$45,000,000 bridge being constructed from Sandy Point to Matapeake, according to an announcement by William L. Chilcote, chairman of the entertainment committee.

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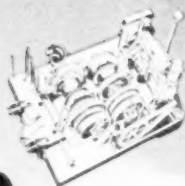
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